

SUMMARY OF ADDITIONAL MODELING TO CORRECT
A MISTAKE IN THE 07/31/2002 OUACHITA RIVER TMDL FOR
BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES AND NUTRIENTS,
AND TO UPDATE THE ALLOCATION FOR
GRAPHIC PACKAGING INTERNATIONAL

OUACHITA RIVER
SUBSEGMENT 080101

SURVEYED 07/17/2001 – 07/19/2001

Water Quality Modeling Section
Water Quality Assessment Division
Office of Environmental Assessment
Louisiana Department of Environmental Quality

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**SUMMARY OF ADDITIONAL MODELING
TO CORRECT A MISTAKE IN THE 07/31/2002 OUACHITA RIVER TMDL FOR
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AND TO UPDATE THE ALLOCATION FOR
GRAPHIC PACKAGING INTERNATIONAL**

This summary documents additional Ouachita River modeling work performed to develop a river flow based allocation for Graphic Packaging International, formerly Riverwood International, formerly Manville Forest Products. In the 2002 TMDL Report an allocation was listed for Riverwood International at Ouachita River critical flow. However, Graphic Packaging has discharge limitations that are linked to Ouachita River flow. In addition, Graphic Packaging has requested an increase in production capacity which will result in an increase in their technology-based effluent limitations and a change in their allocation. The technology-based limitations were derived from USEPA Guidelines for Pulp, Paper, and Paperboard, 40 CFR 430. The need for a river flow linked allocation and the request for increased technology-based limitations occasioned this additional modeling work. The calibrated QUAL2E model from the 2002 TMDL was reprojected to obtain the necessary point and nonpoint loading for the new allocation.

Graphic Packaging discharges to an impoundment, the discharge from which to the Ouachita River is controlled by GP at Outfall 001. Outfall 001 is incorrectly referred to in the model as Judy Slough. The West Monroe POTW also discharges to this impoundment. The discharge from Outfall 001 is currently covered by a 1987 USEPA permit, issued to Manville Forest Products, which specifies the lb/day of BOD₅ which may be discharged from Outfall 001 as a function of the seven day running average of the Ouachita River flow as measured by the USGS slope gage between the Arkansas state line and Monroe. The equations governing the discharge are as follows:

$$\text{For } Q \leq 780 \text{ cfs, daily maximum BOD}_5 = 4,205 \text{ lbs/day}$$

$$\text{For } 802 \text{ cfs} \leq Q \leq 5,630 \text{ cfs, daily maximum BOD}_5 = 5.95Q - 240$$

$$\text{For } Q \geq 5,630 \text{ cfs, daily maximum BOD}_5 = 0.63Q + 29,738$$

The lower section of the allocation curve applies at river flows equal to and less than the critical low flow, and is equal to the water quality based allocation at the Ouachita critical flow. The middle section is also water quality based with a bottom at the critical flow and a top at the Manville technology-based limitation. The top section of the allocation curve allows an allocation above the technology-based limitation to account for the West Monroe POTW effluent. Model projections were run to determine the bottom and the top of the middle portion of the allocation curve and a linear interpolation was made between these points. New allocation curves have been calculated for the current and the requested increase in the technology-based limitations.

In the 2002 TMDL Report, the major point source dischargers remained at current permit limits with the exception of Riverwood International. The Riverwood allocation at Ouachita River critical flow was reduced by 15 percent from the 1987 USEPA loading limits during the summer season (May through October) with no reduction of the 1987 USEPA loading limits required during the winter season (November through April). In addition to the need for a river flow linked allocation and an update to the allocation to cover increased technology-based limitations, the 2002 allocation at the Ouachita critical low flow was found to be in error. The 2006 revisions to the calculation of the Graphic Packaging allocation have shown that no reduction of that allocation is required in order for

the DO criteria to be met in the receiving stream at Ouachita River critical flow. This revision is based on a re-assessment of the information used to determine the permittee's current Ouachita River flow based allocation which was derived by using a daily maximum BOD_5 loading limit for the combined discharge from Outfall 001. The steady state model, upon which the 2002 and the new allocation is based, projects a long term average allocation which is interpreted in the permit as a monthly average limitation. Model projections were therefore rerun using a monthly average rather than a daily maximum limitation for GP and translated to the equivalent daily maximum for the allocation.

Water quality criteria for dissolved oxygen for the Ouachita differ by month as follows:

June and July – 3.5 mg/l

August – 4.5 mg/l

September through May – 5.0 mg/l

Because of this, model projections were run for several months using the monthly 7Q10 Ouachita flows as critical flows. Since the most critical conditions were found to occur during the month of August, projections for this month were used to recalculate the wasteload allocation for the summer season. The most critical condition during the winter season occurs during the month of November, so the critical flow for this month was used to calculate the wasteload allocations for the winter months. Because the November critical flow is higher than that for August, the first section of the allocation curve is higher for the winter season.

Changes made to the 2002 Ouachita River model projections were:

1. The correction of Graphic Packaging loading in projections at Ouachita critical flow
2. The addition of projections at GP technical guideline limitations
3. The update of discharge rates from Ouachita Power and the Sterlington POTW
4. Revision of nonpoint reductions to, hopefully, more attainable numbers as follows

| | 2002 TMDL | 2005 TMDL |
|----------------------------------|-----------|-----------|
| Ouachita headwater loading | 15% | 0% |
| Tributary loading | 0% | 15% |
| Distributed SOD loading | 30% | 25% |
| Distributed nonpoint BOD loading | 30% | 25% |

It is judged that there is little chance for nonpoint BMPs to impact the Ouachita River headwater loading at Sterlington, a somewhat greater chance to impact loading from the tributaries, and a good chance of impacting distributed SOD and nonpoint BOD loading in the river.

The calculated daily maximum allocations are, for summer season and the current production rate;

For $Q \leq 802$ cfs, daily maximum $BOD_5 = 4,532$ lbs/day

For $802 \text{ cfs} \leq Q \leq 5,200$ cfs, daily maximum $BOD_5 = 5.73124Q - 64$

For $Q \geq 5,200$ cfs, daily maximum $BOD_5 = 0.63Q + 26,462$

for the summer season and the requested increase in production;

For $Q \leq 802$ cfs, daily maximum $BOD_5 = 4,532$ lbs/day

For $802 \text{ cfs} \leq Q \leq 5,800$ cfs, daily maximum $BOD_5 = 6.82573Q - 942$

For $Q \geq 5,800$ cfs, daily maximum $BOD_5 = 0.63Q + 34,993$

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for the winter season and the current production rate;

For $Q \leq 1231$ cfs, daily maximum $BOD_5 = 6,991$ lbs/day

For $1231 \text{ cfs} \leq Q \leq 5,200$ cfs, daily maximum $BOD_5 = 5.73124Q - 64$

For $Q \geq 5,800$ cfs, daily maximum $BOD_5 = 0.63Q + 26,462$

and for the winter season and the requested increase in production;

For $Q \leq 1231$ cfs, daily maximum $BOD_5 = 7,460$ lbs/day

For $1231 \text{ cfs} \leq Q \leq 5,800$ cfs, daily maximum $BOD_5 = 6.82573Q - 942$

For $Q \geq 5,800$ cfs, daily maximum $BOD_5 = 0.63Q + 34,993$

Where Q is the seven day running average of the Ouachita River flow as measured by the USGS slope gage between the Arkansas state line and Monroe.

These changes have resulted in a change in the summer and winter TMDLs, which are summarized in revised Tables 1 - 3. The allocations and TMDLs listed are, as always, monthly (or long term) average numbers. The most critical months of August for the summer season and November for the winter season were used for the TMDL projections.

Table 1 - Summer Season Allocations and TMDL for Ouachita River Subsegment 080101 at Ouachita River Critical Flow - Current and proposed Graphic Packaging Technical Guideline Limitations

| PARAMETER | WLA (lbs O ₂ /day) | LA (lbs O ₂ /day) | MOS (lbs O ₂ /day) | TMDL (lbs O ₂ /day) |
|--------------------|----------------------------------|---------------------------------|----------------------------------|-----------------------------------|
| UCBOD | 17,821 | 107,719 | 16,424 | 141,964 |
| ORG-N | 6,769 | 22,901 | 4,237 | 33,907 |
| NH ₃ -N | 2,841 | 676 | 785 | 4,302 |
| SOD | 0 | 5.0 | 0.6 | 5.6 |
| TOTAL | 27,430 | 131,301 | 21,447 | 180,177 |

Table 2 - Winter Season Allocations and TMDL for Ouachita River Subsegment 080101 at Ouachita River Critical Flow – Current Graphic Packaging Technical Guideline Limitations

| WINTER ALLOCATIONS AT CURRENT GRAPHIC PACKAGING TECHNICAL GUIDELINE LIMITATIONS | | | | |
|---|---------------------------------|--------------------------------|---------------------------------|----------------------------------|
| PARAMETER | WLA (lb O ₂ /day) | LA (lb O ₂ /day) | MOS (lb O ₂ /day) | TMDL (lb O ₂ /day) |
| UCBOD | 20682.6 | 139056.8 | 20621.4 | 180360.7 |
| ORG-N | 7219.7 | 27779.3 | 4891.5 | 39890.5 |
| NH ₃ -N | 3067.4 | 765.2 | 851.9 | 4684.5 |
| SOD | -- | 2.8 | 0.3 | 3.1 |
| TOTAL | 30969.7 | 167604.0 | 26365.1 | 224938.9 |

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Table 3 - Winter Season Allocations and TMDL for Ouachita River Subsegment 080101 at Ouachita River Critical Flow – Proposed Graphic Packaging Technical Guideline Limitations

| WINTER ALLOCATIONS AT PROPOSED GRAPHIC PACKAGING TECHNICAL GUIDELINE LIMITATIONS | | | | |
|--|---------------------------------|--------------------------------|---------------------------------|----------------------------------|
| PARAMETER | WLA (lb O ₂ /day) | LA (lb O ₂ /day) | MOS (lb O ₂ /day) | TMDL (lb O ₂ /day) |
| UCBOD | 21228.8 | 139056.8 | 20621.4 | 180906.9 |
| ORG-N | 7305.8 | 27779.3 | 4891.5 | 39976.6 |
| NH ₃ -N | 3110.8 | 765.2 | 851.9 | 4727.8 |
| SOD | -- | 2.8 | 0.3 | 3.1 |
| TOTAL | 31645.3 | 167604.0 | 26365.1 | 225614.4 |

The winter season TMDL loading for point sources changes with the Graphic Packaging technical guideline limits. The allocation curves for the current and proposed guidelines that are used year-round are cut off at the lower end by the Ouachita River 7Q10 for November, yielding differing loading rates for the two guideline limits.

Changes in allocation and TMDL loading from the 2002 TMDL reflect changes to point sources and nonpoint loading as discussed on pages 2. In general, the wasteload allocations are lower and the nonpoint allocations are higher. The summer TMDL is about the same and the winter TMDLs slightly lower compared to 2002.

Required reductions in nonpoint loading to the Ouachita River are summarized in Table 4.

Table 4 – Reductions in nonpoint loading to the Ouachita River

| MODEL NONPOINT LOADING | % REDUCTION |
|--------------------------|-------------|
| Headwater at Sterlington | 0 |
| Tributaries | 15 |
| Sediment Oxygen Demand | 25 |
| Incremental Loading | 25 |

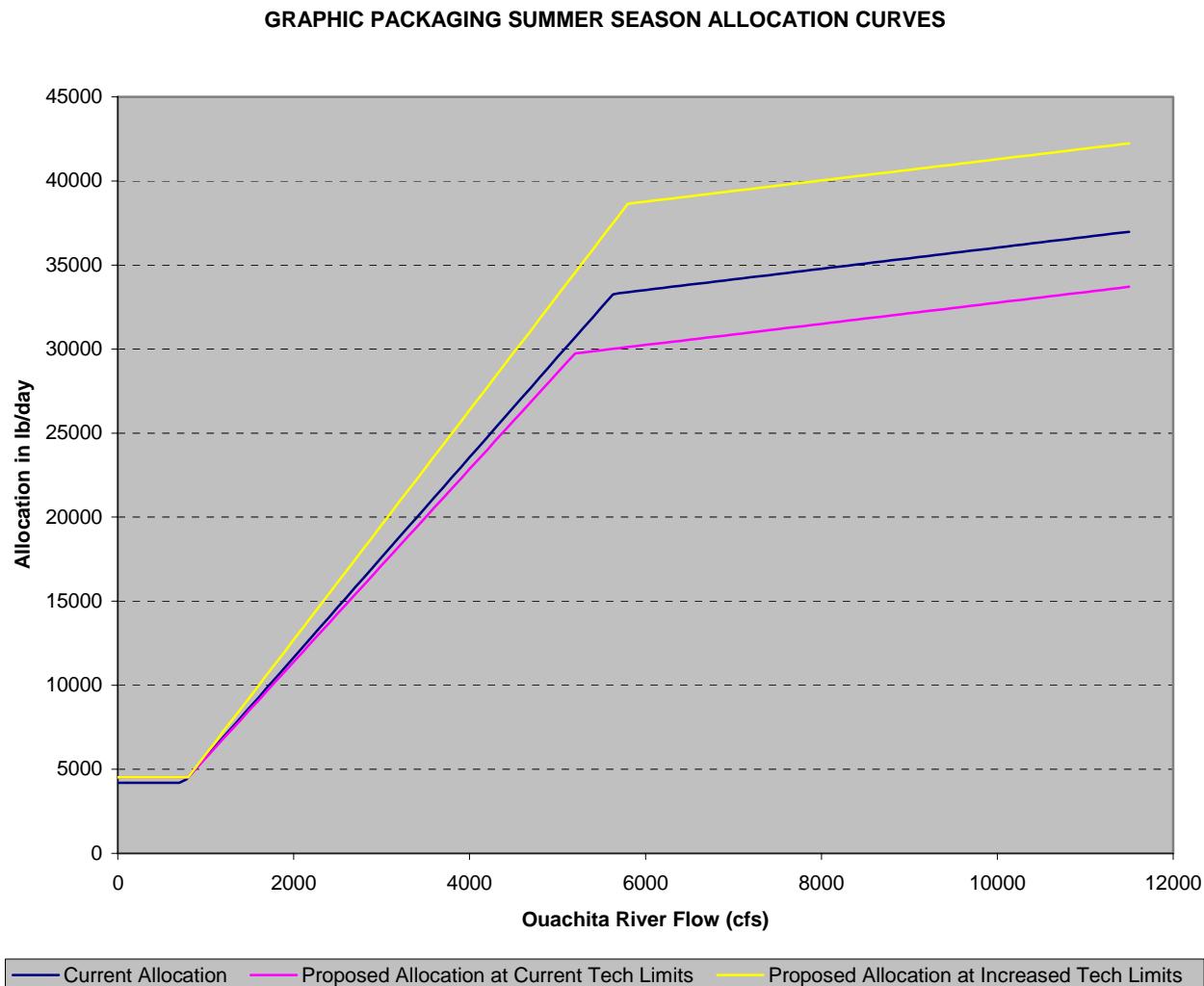
Figures 1 and 2 depict the Graphic Packaging summer and winter season allocation curves. The current allocation is obtained from their 1987 permit, which is still in effect. The other two curves cover the proposed allocations for the current and increased technology-based limitations. Allocations for other dischargers are unchanged from current permit limitations and are summarized in Table 4.

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Figure 1 – Graphic Packaging Summer Season Allocation Curves for Discharge from Outfall 001 to Ouachita River subsegment 080101



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Figure 2 – Graphic Packaging Winter Season Allocation Curves for Discharge from Outfall 001 to Ouachita River Subsegment 080101

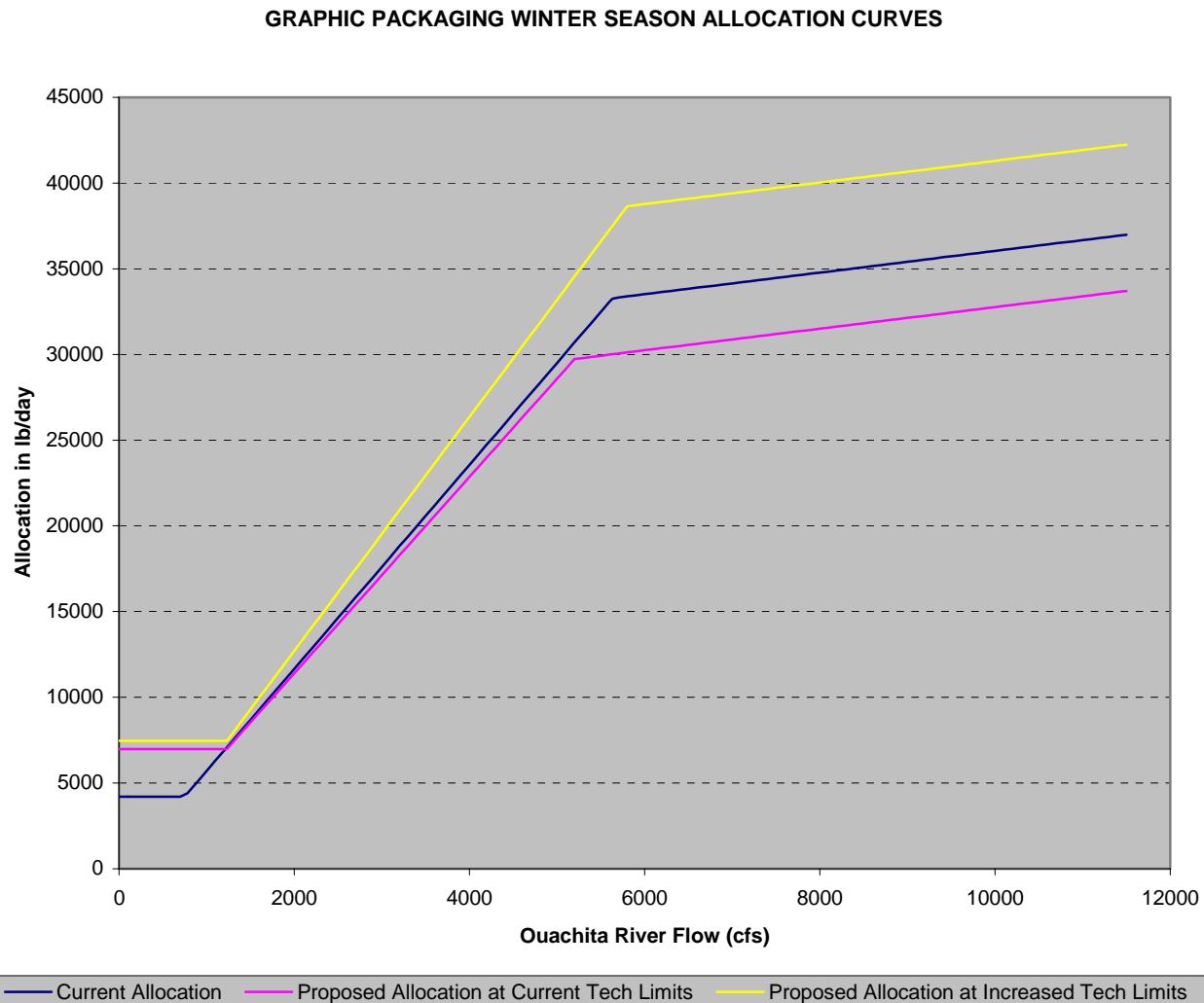


Table 5 – Discharger Inventory and Allocations for Ouachita River Subsegment 080101

| Facility | Outfall no. | Permit no. | Outfall ORM | Flow (mgd) | Allocations | | |
|---------------------------------|-------------|------------|-------------|--------------------|-------------|----------------------------------|--------------------|
| | | | | | Temp °F | CBOD ₅ | NH ₃ -N |
| Ouachita Power | 001&002 | LA0112780 | 192.90 | 2.324 ¹ | 99 | | |
| Entergy Sterlington | 001&002 | LA0007579 | 192.46 | 159 | 112 | | |
| Sterlington POTW | 001 | LA0046809 | 191.81 | 0.225 ² | | 30 mg/l | |
| Koch Nitrogen | 001 | LA0094846 | 191.36 | 2.49 | | | 342 lb/d |
| Angus Chemical | 002 | LA0007854 | 189.24 | 0.75 | | 288 lb/d | |
| Entergy Monroe | 001&002 | LA0007765 | 169.29 | 116 | 106 | | |
| Graphic Packaging International | 001 | LA0007617 | 160.91 | 31.72 | | Hydro-graph limited ⁴ | |
| West Monroe POTW | 001 | LA0043982 | | 6.87 ³ | | 30 mg/l | |
| Monroe POTW | 001 | LA0038741 | 159.56 | 12.0 | | 10 mg/l | 2 mg/l |

1. Updated flow as per application of 12/24/04

2. Updated flow as per application of 12/17/05

3. Effluent combined with Graphic Packaging Outfall 401 and permitted as GP Outfall 001

4. Calculated from the 7 day moving average Ouachitea River flow as per the equations on Page 2

The input files of runs involved in this update of the Ouachita River TMDL are attached to this summary document. For those interested in these runs, a brief explanation of how the corrected and updated Graphic Packaging allocation was calculated is in order.

1. The 1987 allocation equation was run at the summer season Ouachita River 7Q10 of 802 cfs to get a new summer critical condition daily maximum allocation for Graphic Packaging. An equivalent monthly average allocation was calculated for modeling purposes.
2. The Ouachita River model was run at 802 cfs to determine the reduction of nonpoint loading needed to allow the Ouachita River dischargers to maintain their current permit limitations at summer season critical conditions.
3. The monthly average equivalent to the current technical guideline limitations and the proposed increase in the technical guideline limitations were calculated.
4. The Ouachita River model was run at the critical condition nonpoint reduction to obtain the river flow needed to accommodate the two sets of technical guideline limitations.
5. The extension of the allocation above the technical guideline limits was calculated using the same Ouachita River flow coefficient (0.63) as the 1987 equation.
6. The equations governing the summer season allocations were derived from the information developed in steps 1, 4, and 5.
7. The equations governing the summer season allocations were applied year round except that the bottom of the allocation curves starts at the winter season Ouachita River 7Q10.

Attachments to this summary document are:

Attachment A – Summer season projection TMDL Spreadsheet

Attachment B – Projection model input at Ouachita River summer critical conditions

Attachment C – Summer projection model input at Graphic Packaging current technical guideline limitations

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Attachment D – Summer projection model input at Graphic Packaging proposed technical guideline limits

Attachment E – Winter projection TMDL spreadsheet

Attachment F – Projection model input at Ouachita River winter critical conditions with Graphic packaging current technical guideline limitations

Attachment G – Projection model input at Ouachita River winter critical conditions with Graphic packaging proposed technical guideline limitations

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ATTACHMENT A

SUMMER SEASON PROJECTION TMDL SPREADSHEET
Ouachita Aug TMDL 3e

LOWER OUACHITA RIVER AUGUST PROJECTION AND TMDL WORKSHEET -
 REDUCTION TO MEET CRITERIA: BENTHIC SOURCES
 Input to blue shaded areas

LOWER OUACHITA RIVER AUGUST PROJECTION AND TMDL
 WORKSHEET - REDUCTION TO MEET CRITERIA: BENTHIC
 Input to blue shaded areas

| Reach No. | Reach Length (mi) | Calibration Benthic Source Rates | | | | | MOS & Reduction | | Projection Input Source Rates | | | Projection Stream Temp (°F) | Projection Stream Width (ft) | Projection Oxygen Demanding Load Allocation | | Projection MOS | |
|-----------|-------------------|--|---------------------------------|-------------------------------|-----------------------------|---------------------|-----------------|---------------|--|-------------------------------|-----------------------------|-----------------------------|------------------------------|---|----------------------------|---|----------------------------|
| | | NH ₃ -N (mg/ft ² -d) | Theta for NH ₃ Decay | Dis P (mg/ft ² -d) | SOD (gm/ft ² -d) | Theta for SOD Decay | MOS (%) | Reduction (%) | NH ₃ -N (gm/ft ² -d) | Dis P (mg/ft ² -d) | SOD (mg/ft ² -d) | | | NH ₃ -N (lb O ₂ /d) | SOD (lb O ₂ /d) | NH ₃ -N (lb O ₂ /d) | SOD (lb O ₂ /d) |
| 1 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 83.2 | 404 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 83.2 | 405 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 83.2 | 400 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 83.2 | 445 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 83.2 | 464 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 83.2 | 507 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 549 | 0.0 | 0.5 | 0.0 | 0.1 |
| 8 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 591 | 0.0 | 0.5 | 0.0 | 0.1 |
| 9 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 556 | 0.0 | 0.5 | 0.0 | 0.1 |
| 10 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 523 | 0.0 | 0.5 | 0.0 | 0.1 |
| 11 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 490 | 0.0 | 0.4 | 0.0 | 0.0 |
| 12 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 468 | 0.0 | 0.4 | 0.0 | 0.0 |
| 13 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 445 | 0.0 | 0.4 | 0.0 | 0.0 |
| 14 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 497 | 0.0 | 0.4 | 0.0 | 0.0 |
| 15 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 548 | 0.0 | 0.5 | 0.0 | 0.1 |
| 16 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 601 | 0.0 | 0.5 | 0.0 | 0.1 |
| 17 | 3.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 25 | 0.00 | 0.00 | 0.0083 | 83.2 | 647 | 0.0 | 0.3 | 0.0 | 0.0 |
| | | | | | | | | | | | | | Total | 0.0 | 5.0 | 0.0 | 0.6 |

LOWER OUACHITA RIVER AUGUST PROJECTION AND TMDL WORKSHEET - REDUCTION TO MEET CRITERIA: HEADWATER AND TRIBUTARIES

Input to blue shaded areas

LOWER OUACHITA RIVER AUGUST PROJECTION AND TMDL WORKSHEET - REDUCTION TO MEET CRITERIA: HEADWATER AND TRIBUTARIES

Input to blue shaded areas

LOWER OUACHITA RIVER AUGUST PROJECTION AND TMDL WORKSHEET - REDUCTION TO MEET
 CRITERIA: INCREMENTAL FLOW
 Input to blue shaded areas

LOWER OUACHITA RIVER AUGUST PROJECTION AND TMDL WORKSHEET - REDUCTION TO MEET
 CRITERIA: INCREMENTAL FLOW
 Input to blue shaded areas

| REACH | Calibration Flows and Concentrations | | | | Calibration Loads | | | Projection Flows and Equivalent Concentrations Prior to MOS and Reduction | | | | MOS & Reduction | | Projection Input Concentrations | | | Projection Oxygen Demanding Load Allocation | | | Projection MOS | | | |
|-------|--------------------------------------|--------------|--------------|--------------|-------------------|----------------|----------------|---|--------------|--------------|--------------|-----------------|---------------|---------------------------------|--------------|--------------|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----|
| | FLOW (cfs/reach) | UCBOD (mg/l) | ORG-N (mg/l) | ORG-P (mg/l) | UCBOD (lb/day) | ORG-N (lb/day) | ORG-P (lb/day) | FLOW (cfs/reach) | UCBOD (mg/l) | ORG-N (mg/l) | ORG-P (mg/l) | MOS (%) | Reduction (%) | UCBOD (mg/l) | ORG-N (mg/l) | ORG-P (mg/l) | UCBOD (lb O ₂ /day) | ORG-N (lb O ₂ /day) | UCBOD (lb O ₂ /day) | ORG-N (lb O ₂ /day) | UCBOD (lb O ₂ /day) | ORG-N (lb O ₂ /day) | |
| 1 | 50.0 | 0.0 | 0.00 | 0.04 | 0.0 | 0.0 | 10.8 | 3.0 | 0.0 | 0.0 | 0.7 | 10 | 25 | 0.0 | 0.0 | 0.56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 50.0 | 0.0 | 0.00 | 0.70 | 0.0 | 0.0 | 188.6 | 3.0 | 0.0 | 0.0 | 11.7 | 10 | 25 | 0.0 | 0.0 | 9.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 50.0 | 20.0 | 0.00 | 1.40 | 5387.6 | 0.0 | 377.1 | 3.0 | 333.3 | 0.0 | 23.3 | 10 | 25 | 277.8 | 0.0 | 19.44 | 4040.7 | 0.0 | 0.0 | 449.0 | 0.0 | 0.0 | 0.0 |
| 4 | 50.0 | 40.0 | 0.00 | 0.00 | 10775.3 | 0.0 | 0.0 | 3.0 | 666.7 | 0.0 | 0.0 | 10 | 25 | 555.6 | 0.0 | 0.00 | 8081.5 | 0.0 | 0.0 | 897.9 | 0.0 | 0.0 | 0.0 |
| 5 | 50.0 | 45.0 | 0.00 | 0.00 | 12122.2 | 0.0 | 0.0 | 3.0 | 750.0 | 0.0 | 0.0 | 10 | 25 | 625.0 | 0.0 | 0.00 | 9091.6 | 0.0 | 0.0 | 1010.2 | 0.0 | 0.0 | 0.0 |
| 6 | 50.0 | 40.0 | 1.20 | 0.00 | 10775.3 | 323.3 | 0.0 | 3.0 | 666.7 | 20.0 | 0.0 | 10 | 25 | 555.6 | 16.7 | 0.00 | 8081.5 | 1108.0 | 0.0 | 897.9 | 123.1 | 0.0 | 0.0 |
| 7 | 50.0 | 30.0 | 1.20 | 0.00 | 8081.5 | 323.3 | 0.0 | 3.0 | 500.0 | 20.0 | 0.0 | 10 | 25 | 416.7 | 16.7 | 0.00 | 6061.1 | 1108.0 | 0.0 | 673.5 | 123.1 | 0.0 | 0.0 |
| 8 | 50.0 | 30.0 | 1.20 | 0.00 | 8081.5 | 323.3 | 0.0 | 3.0 | 500.0 | 20.0 | 0.0 | 10 | 25 | 416.7 | 16.7 | 0.00 | 6061.1 | 1108.0 | 0.0 | 673.5 | 123.1 | 0.0 | 0.0 |
| 9 | 50.0 | 30.0 | 1.20 | 0.20 | 8081.5 | 323.3 | 53.9 | 3.0 | 500.0 | 20.0 | 3.3 | 10 | 25 | 416.7 | 16.7 | 2.78 | 6061.1 | 1108.0 | 0.0 | 673.5 | 123.1 | 0.0 | 0.0 |
| 10 | 50.0 | 30.0 | 1.20 | 0.30 | 8081.5 | 323.3 | 80.8 | 3.0 | 500.0 | 20.0 | 5.0 | 10 | 25 | 416.7 | 16.7 | 4.17 | 6061.1 | 1108.0 | 0.0 | 673.5 | 123.1 | 0.0 | 0.0 |
| 11 | 23.0 | 55.0 | 1.20 | 0.00 | 6815.4 | 148.7 | 0.0 | 3.0 | 421.7 | 9.2 | 0.0 | 10 | 25 | 351.4 | 7.7 | 0.00 | 5111.5 | 509.7 | 0.0 | 567.9 | 56.6 | 0.0 | 0.0 |
| 12 | 23.0 | 55.0 | 1.20 | 0.00 | 6815.4 | 148.7 | 0.0 | 3.0 | 421.7 | 9.2 | 0.0 | 10 | 25 | 351.4 | 7.7 | 0.00 | 5111.5 | 509.7 | 0.0 | 567.9 | 56.6 | 0.0 | 0.0 |
| 13 | 23.0 | 53.0 | 1.20 | 0.00 | 6567.5 | 148.7 | 0.0 | 3.0 | 406.3 | 9.2 | 0.0 | 10 | 25 | 338.6 | 7.7 | 0.00 | 4925.6 | 509.7 | 0.0 | 547.3 | 56.6 | 0.0 | 0.0 |
| 14 | 23.0 | 48.0 | 1.20 | 0.00 | 5948.0 | 148.7 | 0.0 | 3.0 | 368.0 | 9.2 | 0.0 | 10 | 25 | 306.7 | 7.7 | 0.00 | 4461.0 | 509.7 | 0.0 | 495.7 | 56.6 | 0.0 | 0.0 |
| 15 | 23.0 | 43.0 | 1.20 | 0.00 | 5328.4 | 148.7 | 0.0 | 3.0 | 329.7 | 9.2 | 0.0 | 10 | 25 | 274.7 | 7.7 | 0.00 | 3996.3 | 509.7 | 0.0 | 444.0 | 56.6 | 0.0 | 0.0 |
| 16 | 23.0 | 38.0 | 1.20 | 0.00 | 4708.8 | 148.7 | 0.0 | 3.0 | 291.3 | 9.2 | 0.0 | 10 | 25 | 242.8 | 7.7 | 0.00 | 3531.6 | 509.7 | 0.0 | 392.4 | 56.6 | 0.0 | 0.0 |
| 17 | 23.0 | 33.0 | 1.20 | 0.00 | 4089.2 | 148.7 | 0.0 | 3.0 | 253.0 | 9.2 | 0.0 | 10 | 25 | 210.8 | 7.7 | 0.00 | 3066.9 | 509.7 | 0.0 | 340.8 | 56.6 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | Total | 83744.1 | 9107.5 | | 9304.9 | 1011.9 | | | |

| LOWER OUACHITA RIVER AUGUST PROJECTION AND TMDL WORKSHEET - REDUCTION TO MEET CRITERIA: POINT SOURCES | | | | | | | | | | | | | | LOWER OUACHITA RIVER AUGUST PROJECTION AND TMDL WORKSHEET - REDUCTION TO MEET CRITERIA: POINT SOURCES | | | | | | | | | | | | | | | | | |
|---|---------------------|---|--------------|--------------|---------------------------|--------------|--------------|--------------|---------------------------|--------------------------|--------------|--------------|---------------------------|---|--------------|------------------|--------------------|----------------------------|------------------------|--|------------------------------|------------------------------|---|------------------------------|------------------------------|---|--|--|--|--|--|
| Input to blue shaded areas | | | | | | | | | | | | | | Permit limitations | | | | Input to blue shaded areas | | | | | | | | | | | | | |
| Name | Ouachita 7Q10 (cfs) | Calibration Data (Ouachita River WQ at intake for power plants) | | | | | | | Projection Concentrations | | | | | | | Projection Flows | | | | Projection Oxygen Demanding Waste Load Allocations | | | | Projection MOS | | | | | | | |
| | | Chl-a | UCBOD (mg/l) | Org-N (mg/l) | NH ₃ -N (mg/l) | NOx-N (mg/l) | Org-P (mg/l) | DIS-P (mg/l) | Chl-a | CBOD ₅ (mg/l) | UCBOD (mg/l) | Org-N (mg/l) | NH ₃ -N (mg/l) | NO ₃ -N (mg/l) | Org-P (mg/l) | Dis-P (mg/l) | Design Flows (mgd) | MOS (%) | Projection Flows (mgd) | Projection Flows (cfs) | UCBOD (lb O ₂ /d) | Org-N (lb O ₂ /d) | NH ₃ -N (lb O ₂ /d) | UCBOD (lb O ₂ /d) | Org-N (lb O ₂ /d) | NH ₃ -N (lb O ₂ /d) | | | | | |
| Ouachita Power intake | | | | | | | | | | | | | | | | | 5.49 | 20 | 6.87 | 10.62 | | | | | | | | | | | |
| Ouachita Power 001&002 | | 0 | 4.9 | 0.6 | 0.02 | 0.2 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.15 | 0.03 | 0.02 | 1.24 | 20 | 1.55 | 2.40 | 41.7 | 23.7 | 0.9 | 10.4 | 5.9 | 0.2 | | | | | |
| Entergy Sterlington 001&002 | | 0 | 4.9 | | 0.02 | 0.2 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.15 | 0.03 | 0.02 | 159.00 | 20 | 198.75 | 307.47 | 5337.4 | 3030.0 | 121.2 | 1334.3 | 757.5 | 30.3 | | | | | |
| Town of Sterlington POTW 001 | | | | | | | | | 100 | 30.0 | 69.0 | 10.00 | 5.00 | 0.70 | 2.50 | 1.00 | 0.15 | 20 | 0.19 | 0.29 | 86.3 | 57.2 | 28.6 | 21.6 | 14.3 | 7.1 | | | | | |
| Koch Nitrogen 001 | | 0 | 10.7 | 0.76 | 0.4 | 0.58 | 0.24 | 0.15 | 0 | 4.7 | 10.7 | 0.76 | 16.50 | 0.58 | 0.24 | 0.15 | 2.49 | 20 | 3.11 | 4.82 | 222.1 | 72.1 | 1565.9 | 55.5 | 18.0 | 391.5 | | | | | |
| Angus Chemical 002 | | 0 | 0.0 | 8.32 | 0.31 | 34.33 | 0.33 | 0.01 | 0 | 46.1 | 106.0 | 8.32 | 0.31 | 34.33 | 0.33 | 0.01 | 0.75 | 20 | 0.94 | 1.45 | 663.2 | 237.8 | 8.9 | 165.8 | 59.5 | 2.2 | | | | | |
| Entergy Monroe 001 | | 0 | 5.1 | 0.57 | 0.02 | 0.22 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.26 | 0.07 | 0.03 | 116.00 | 20 | 145.00 | 224.32 | 3893.9 | 2210.6 | 88.4 | 973.5 | 552.7 | 22.1 | | | | | |
| Graph Packaging 001* | 802 | 12.2 | 86.4 | 2.98 | 1.5 | 0.12 | 0.69 | 0.7 | 12.2 | 37.6 | 86.4 | 2.98 | 1.50 | 0.12 | 0.69 | 0.70 | 7.32 | 20 | 9.14 | 14.15 | 5274.1 | 830.9 | 418.3 | 1318.5 | 207.7 | 104.6 | | | | | |
| City of Monroe POTW 001 | | 0 | 24.3 | 1.83 | 0.34 | 6.36 | 0.95 | 0.29 | 0 | 10.0 | 23.0 | 0.67 | 1.33 | 6.36 | 0.95 | 0.29 | 12.00 | 20 | 15.00 | 23.21 | 2301.8 | 306.4 | 608.3 | 575.5 | 76.6 | 152.1 | | | | | |
| Ouachita flow-----> | 780 | 802 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current tech limit in lb/d mo max BOD5 | 29738 | 29738 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current tech limit in lb/d mo avg BOD5 | 15047 | 15047 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current GP Allocation in lb/d mo avg BOD5 @ Ouachita critical flow | 2227 | 2293 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current GP Allocation in lb/d daily max BOD5 @ Ouachita critical flow | | 4532 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent GP outfall 001 mo avg flow in mgd | 7.10 | 7.32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent (to current tech limit) GP outfall 001 mo avg flow in mgd | | 48.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Projection GP outfall 001 mo avg flow in cfs for current tech limit | | 92.83 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Proposed tech limit in lb/d mo avg BOD5 | | 19597 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent (to proposed tech limit) GP outfall 001 mo avg flow in mgd | | 62.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Projection GP outfall 001 mo avg flow in cfs for proposed tech limit | | 120.90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* Using the measured UCBOD as typical, the projection discharge flow (including a margin of safety), is calculated from the Ouachita river state line 7Q10 using the formula for the mass discharge limitation ($\text{lb/d BOD}_5 = 5.95Q - 240$).

| PARAMETER | WLA (lb/day) | LA (lb/day) | MOS (lb/day) | TMDL (lb/day) |
|--------------------|-----------------|----------------|-----------------|------------------|
| UCBOD | 17820.6 | 107719.0 | 16423.9 | 141963.6 |
| ORG-N | 6768.8 | 22901.0 | 4236.8 | 33906.5 |
| NH ₃ -N | 2840.5 | 676.0 | 785.2 | 4301.7 |
| SOD | -- | 5.0 | 0.6 | 5.6 |
| TOTAL | 27429.9 | 131301.1 | 21446.5 | 180177.4 |

Subsegment 080101

Originated: March 1, 2006

Revised:

ATTACHMENT B

PROJECTION MODEL INPUT AT OUACHITA RIVER SUMMER CRITICAL CONDITIONS SUMMER SEASON TMDL RUN Qal2e569.run

Subsegment 080101

Originated: March 1, 2006

Revised:

TITLE01 LOWER OUACHITA RIVER AUGUST PROJECTIONSTEADY STATE WQ RUN T
 TITLE02 O MEET CRITERIA
 TITLE03 NO CONSERVATIVE MINERAL I
 TITLE04 NO CONSERVATIVE MINERAL II
 TITLE05 NO CONSERVATIVE MINERAL III
 TITLE06 YES TEMPERATURE
 TITLE07 YES BIOCHEMICAL OXYGEN DEMAND
 TITLE08 YES ALGAE AS CHL-A IN UG/L
 TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
 (ORGANIC-P; DISSOLVED-P)
 TITLE10 YES NITROGEN CYCLE AS N IN MG/L
 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
 TITLE11 YES DISSOLVED OXYGEN IN MG/L
 TITLE12 NO FECAL COLIFORM IN NO./100 ML
 TITLE13 NO ARBITRARY NON-CONSERVATIVE
 ENDTITLE
 LIST DATA INPUT
 WRITE OPTIONAL SUMMARY
 NO FLOW AUGMENTATION
 STEADY STATE
 NO TRAP CHANNELS
 NO PRINT LCD/SOLAR DATA
 NO PLOT DO AND BOD DATA
 FIXED DNSTM CONC (YES=1)= 0. 5D-ULT BOD CONV K COEF = 0
 INPUT METRIC = 0. OUTPUT METRIC = 0.
 NUMBER OF REACHES = 17 NUMBER OF JUNCTIONS = 0
 NUM OF HEADWATERS = 1 NUMBER OF POINT LOADS = 17
 TIME STEP (HOURS) = 1.0 LNTH. COMP. ELEMENT (DX)= 0.25
 MAXIMUM ROUTE TIME (HRS)= 450. TIME INC. FOR RPT2 (HRS)= 3
 LATITUDE OF BASIN (DEG) = 32.5 LONGITUDE OF BASIN (DEG)= 92.0
 STANDARD MARIDIAN (DEG) = 90.0 DAY OF YEAR START TIME = 228.
 EVAP. COEF.,(AE) = 0.00042 EVAP. COEF.,(BE) = 0.00021
 ELEV. OF BASIN (ELEV) = 54.00 DUST ATTENUATION COEF. = 0.13
 ENDATA1
 O UPTAKE BY NH3 OXID(MG O/MG N)= 3.43 O UPTAKE BY NO2 OXID(MG O/MG N)= 1.14
 O PROD BY ALGAE (MG O/MG A) = 1.8 O UPTAKE BY ALGAE (MG O/MG A) = 2.30
 N CONTENT OF ALGAE (MG N/MG A) = .090 P CONTENT OF ALGAE (MG O/MG A) = 0.015
 ALG MAX SPEC GROWTH RATE(1/DAY)= 2.1 ALGAE RESPIRATION RATE (1/DAY) = 0.050
 N HALF SATURATION CONST (MG/L) = 0.20 P HALF SATURATION CONST (MG/L) = 0.04
 LIN ALG SHADE CO (1/H-UGCHA/L) = 0.0027 NLIN SHADE (1/H-(UGCHA/L)**2/3)= 0.0165
 LIGHT FUNCTION OPTION (LFNOPT) = 1. LIGHT SATURATION COEF (INT/MIN)= .066
 DAILY AVERAGING OPTION (LAVOPT)= 3. LIGHT AVERAGING FACTOR (AFACT) = 0.92
 NUMBER OF DAYLIGHT HOURS (DLH) = 14. TOTAL DAILY SOLAR RADTN (INT) = 1300.
 ALGY GROWTH CALC OPTION(LGROPT)= 1. ALGAL PREF FOR NH3-N (PREFN) = 0.5
 ALG/TEMP SOLR RAD FACTOR(TFACT)= 0.44 NITRIFICATION INHIBITION COEF = 0.6
 ENDATA1A
 THETA BOD DECA 1.047
 THETA BOD SETT 1.024
 THETA OXY TRAN 1.024
 THETA SOD RATE 1.065
 THETA ORGN DEC 1.047
 THETA ORGN SET 1.024
 THETA NH3 DECA 1.070
 THETA NH3 SRCE 1.074
 THETA NO2 DECA 1.047
 THETA PORC DEC 1.047
 THETA PORC SET 1.024
 THETA DISP SRC 1.074

Subsegment 080101

Originated: March 1, 2006

Revised:

| | | |
|-------|----------|-------|
| THETA | ALG GROW | 1.047 |
| THETA | ALG RESP | 1.047 |
| THETA | ALG SETT | 1.024 |

ENDATA1B

| | | | | | | |
|--------------|---------|----------|------|--------|----|--------|
| STREAM REACH | 1.RCH= | REACH 1 | FROM | 200.38 | TO | 195.38 |
| STREAM REACH | 2.RCH= | REACH 2 | FROM | 195.38 | TO | 190.38 |
| STREAM REACH | 3.RCH= | REACH 3 | FROM | 190.38 | TO | 185.38 |
| STREAM REACH | 4.RCH= | REACH 4 | FROM | 185.38 | TO | 180.38 |
| STREAM REACH | 5.RCH= | REACH 5 | FROM | 180.38 | TO | 175.38 |
| STREAM REACH | 6.RCH= | REACH 6 | FROM | 175.38 | TO | 170.38 |
| STREAM REACH | 7.RCH= | REACH 7 | FROM | 170.38 | TO | 165.38 |
| STREAM REACH | 8.RCH= | REACH 8 | FROM | 165.38 | TO | 160.38 |
| STREAM REACH | 9.RCH= | REACH 9 | FROM | 160.38 | TO | 155.38 |
| STREAM REACH | 10.RCH= | REACH 10 | FROM | 155.38 | TO | 150.38 |
| STREAM REACH | 11.RCH= | REACH 11 | FROM | 150.38 | TO | 145.38 |
| STREAM REACH | 12.RCH= | REACH 12 | FROM | 145.38 | TO | 140.38 |
| STREAM REACH | 13.RCH= | REACH 13 | FROM | 140.38 | TO | 135.38 |
| STREAM REACH | 14.RCH= | REACH 14 | FROM | 135.38 | TO | 130.38 |
| STREAM REACH | 15.RCH= | REACH 15 | FROM | 130.38 | TO | 125.38 |
| STREAM REACH | 16.RCH= | REACH 16 | FROM | 125.38 | TO | 120.38 |
| STREAM REACH | 17.RCH= | REACH 17 | FROM | 120.38 | TO | 117.38 |

ENDATA2

ENDATA3

ENDATA4

| | | | | | | | | |
|------------|------|-----|------|-----------|-------|----------|----------|------|
| HYDRAULICS | RCH= | 1. | 30.0 | 0.0001828 | .9789 | 14.00000 | 0.01628 | .035 |
| HYDRAULICS | RCH= | 2. | 30.0 | 0.0001895 | .9838 | 13.30000 | 0.01351 | .035 |
| HYDRAULICS | RCH= | 3. | 30.0 | 0.0002137 | .9795 | 12.40000 | 0.01226 | .035 |
| HYDRAULICS | RCH= | 4. | 30.0 | 0.0001425 | .9824 | 16.10000 | 0.01469 | .035 |
| HYDRAULICS | RCH= | 5. | 30.0 | 0.0001057 | .9859 | 21.20000 | 0.008562 | .035 |
| HYDRAULICS | RCH= | 6. | 30.0 | 0.0000928 | .9922 | 21.70000 | 0.004773 | .035 |
| HYDRAULICS | RCH= | 7. | 30.0 | 0.0000860 | .9934 | 21.70000 | 0.003175 | .035 |
| HYDRAULICS | RCH= | 8. | 30.0 | 0.0000795 | .9954 | 21.60000 | 0.002580 | .035 |
| HYDRAULICS | RCH= | 9. | 30.0 | 0.0000849 | .9960 | 21.60000 | 0.001333 | .035 |
| HYDRAULICS | RCH= | 10. | 30.0 | 0.0000918 | .9962 | 21.10000 | 0.002004 | .035 |
| HYDRAULICS | RCH= | 11. | 30.0 | 0.0000987 | .9971 | 20.90000 | 0.001502 | .035 |
| HYDRAULICS | RCH= | 12. | 30.0 | 0.0000812 | .9977 | 26.50000 | 0.001355 | .035 |
| HYDRAULICS | RCH= | 13. | 30.0 | 0.0000700 | .9985 | 32.30000 | 0.000794 | .035 |
| HYDRAULICS | RCH= | 14. | 30.0 | 0.0000678 | .9989 | 29.80000 | 0.000518 | .035 |
| HYDRAULICS | RCH= | 15. | 30.0 | 0.0000670 | .9994 | 27.30000 | 0.000153 | .035 |
| HYDRAULICS | RCH= | 16. | 30.0 | 0.0000675 | .9995 | 24.70000 | 0.000212 | .035 |
| HYDRAULICS | RCH= | 17. | 30.0 | 0.0000687 | .9999 | 22.50000 | 0.000055 | .035 |

Subsegment 080101

Originated: March 1, 2006

Revised:

ENDATA5

| | | | | | | | | |
|-----------------|-----|-------|-------|-------|----|-------|--------|---------|
| REACT COEF RCH= | 1. | 0.032 | 0.005 | .0000 | 1. | 0.198 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 2. | 0.032 | 0.005 | .0000 | 1. | 0.213 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 3. | 0.032 | 0.005 | .0000 | 1. | 0.230 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 4. | 0.032 | 0.005 | .0000 | 1. | 0.174 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 5. | 0.032 | 0.005 | .0000 | 1. | 0.138 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 6. | 0.032 | 0.005 | .0000 | 1. | 0.138 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 7. | 0.032 | 0.005 | .0083 | 1. | 0.140 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 8. | 0.032 | 0.005 | .0083 | 1. | 0.141 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 9. | 0.032 | 0.005 | .0083 | 1. | 0.142 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 10. | 0.032 | 0.005 | .0083 | 1. | 0.145 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 11. | 0.032 | 0.005 | .0083 | 1. | 0.147 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 12. | 0.032 | 0.005 | .0083 | 1. | 0.116 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 13. | 0.032 | 0.005 | .0083 | 1. | 0.095 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 14. | 0.032 | 0.005 | .0083 | 1. | 0.103 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 15. | 0.032 | 0.005 | .0083 | 1. | 0.113 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 16. | 0.032 | 0.005 | .0083 | 1. | 0.125 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 17. | 0.032 | 0.005 | .0083 | 1. | 0.137 | 0.0000 | 0.00E-4 |

ENDATA6

| | | | | | | | | | |
|-------------------|-----|-------|-------|-------|------|------|-----|-------|------|
| N AND P COEF RCH= | 1. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 2. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 3. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 4. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 5. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 6. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 7. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 8. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 9. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 10. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 11. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 12. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 13. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 14. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 15. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 16. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 17. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |

ENDATA6A

| | | | | | | | | | |
|---------------------|-----|------|------|------|-----|-----|-----|-----|-----|
| ALG/OTHER COEF RCH= | 1. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 2. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 3. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 4. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 5. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 6. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 7. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 8. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 9. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 10. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 11. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 12. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 13. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 14. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 15. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 16. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 17. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

ENDATA6B

| | | | | | | | | | |
|---------------------|----|------|------|------|------|-----|-----|-----|-----|
| INITIAL COND-1 RCH= | 1. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| INITIAL COND-1 RCH= | 2. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| INITIAL COND-1 RCH= | 3. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |

Subsegment 080101

Originated: March 1, 2006

Revised:

```

INITIAL COND-1 RCH= 4. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 5. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 6. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 7. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 8. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 9. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 10. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 11. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 12. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 13. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 14. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 15. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 16. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 17. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
ENDATA7

INITIAL COND-2 RCH= 1. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 2. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 3. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 4. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 5. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 6. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 7. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 8. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 9. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 10. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 11. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 12. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 13. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 14. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 15. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 16. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 17. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
ENDATA7A

INCR INFLOW-1 RCH= 1. 3.0 89.3 4.50 00.0 0.0 0.0 .000 0.00 0.08
INCR INFLOW-1 RCH= 2. 3.0 89.3 4.50 00.0 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 3. 3.0 89.3 4.50 277.8 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 4. 3.0 89.3 4.50 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 5. 3.0 89.3 4.50 625.0 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 6. 3.0 89.3 4.50 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 7. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 8. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 9. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 10. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 11. 3.0 89.3 4.50 351.4 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 12. 3.0 89.3 4.50 351.4 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 13. 3.0 89.3 4.50 338.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 14. 3.0 89.3 4.50 306.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 15. 3.0 89.3 4.50 274.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 16. 3.0 89.3 4.50 242.8 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 17. 3.0 89.3 4.50 210.8 0.0 0.0 .000 0.00 0.0
ENDATA8

INCR INFLOW-2 RCH= 1. 0.0 0.00 0.00 0.00 0.00 0.56 0.00
INCR INFLOW-2 RCH= 2. 0.0 0.00 0.00 0.00 0.00 9.72 0.00
INCR INFLOW-2 RCH= 3. 0.0 0.00 0.00 0.00 0.00 19.44 0.00
INCR INFLOW-2 RCH= 4. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 5. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 6. 0.0 16.70 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 7. 0.0 16.70 0.00 0.00 0.00 0.00 0.00

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Subsegment 080101

Originated: March 1, 2006

Revised:

INCR INFLOW-2 RCH= 8. 0.0 16.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 9. 0.0 16.70 0.00 0.00 0.00 0.00 2.78 0.00
 INCR INFLOW-2 RCH= 10. 0.0 16.70 0.00 0.00 0.00 0.00 4.17 0.00
 INCR INFLOW-2 RCH= 11. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 12. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 13. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 14. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 15. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 16. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 17. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00

ENDATA8A
 ENDTA9
 HEADWTR-1 HDW= 1.0 REACH 1 802. 91.2 5.80 5.60 0.00 0.0 0.0
 ENDTA10
 HEADWTR-2 HDW= 1.0 0.0 0.0 13.8 0.72 0.03 0.02 0.17 0.04 0.02
 ENDTA10A
 POINTLD-1 PTL= 1BARTHOLOMEW 0 60.00 84.4 6.10 6.9 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 2OUCH POW IN 0 -10.62 74.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 3OUCH POW OUT 0 2.40 99.0 6.00 5.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 4ENT STER IN 0 -307.54 74.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 5ENT STER OUT 0 307.54 112.0 5.60 5.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 6STERLINGTON 0 0.29 86.0 2.00 69.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 7KOCH 001 0 4.82 86.0 2.00 10.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 8ANGUS 002 0 1.45 86.0 2.00 106.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 9B DE L'OUTRE 0 4.80 86.9 6.00 4.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 10B D'ARBONNE 0 0.10 87.1 6.00 4.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 11CHAUVIN B 0 2.40 84.4 6.10 19.6 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 12ENT MON IN 0 -224.30 75.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 13ENT MON OUT 0 224.30 106.0 4.91 7.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 14JUDY SLOUGH 0 14.15 83.3 2.00 86.4 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 15MONROE POTW 0 23.21 86.0 2.00 23.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 16CHENERE CR 0 0.50 83.3 6.20 10.3 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 17CYPRESS CR 0 0.00 86.0 0.00 0.0 0.0 0.0 0.0 0.0

ENDATA11
 POINTLD-2 PTL= 1 0.0 0.0 14.8 0.60 0.02 0.02 0.19 0.18 0.03
 POINTLD-2 PTL= 2 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 3 0.0 0.0 0.0 0.70 0.03 0.02 0.16 0.08 0.02
 POINTLD-2 PTL= 4 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 5 0.0 0.0 0.0 0.70 0.03 0.02 0.20 0.10 0.02
 POINTLD-2 PTL= 6 0.0 0.0 100.0 10.00 5.00 0.00 0.70 2.50 1.00
 POINTLD-2 PTL= 7 0.0 0.0 0.0 0.76 16.50 0.00 0.58 0.24 0.15
 POINTLD-2 PTL= 8 0.0 0.0 0.0 8.32 0.31 0.00 34.33 0.33 0.01
 POINTLD-2 PTL= 9 0.0 0.0 11.3 0.69 0.02 0.01 0.08 0.07 0.01
 POINTLD-2 PTL= 10 0.0 0.0 11.3 0.60 0.02 0.01 0.07 0.05 0.01
 POINTLD-2 PTL= 11 0.0 0.0 24.9 1.60 1.06 0.02 0.19 0.35 0.54
 POINTLD-2 PTL= 12 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 13 0.0 0.0 0.0 0.67 0.04 0.04 0.30 0.15 0.03
 POINTLD-2 PTL= 14 0.0 0.0 12.2 2.98 1.50 0.00 0.12 0.69 0.70
 POINTLD-2 PTL= 15 0.0 0.0 0.0 0.67 1.33 0.00 6.36 0.95 0.29
 POINTLD-2 PTL= 16 0.0 0.0 11.3 0.69 0.02 0.00 0.03 0.05 0.01
 POINTLD-2 PTL= 17 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00

ENDATA11A
 ENDTA12
 ENDTA13
 ENDTA13A
 LOCAL CLIMATOLOGY 0 0 0.20 81.00 71.80 30.00 6.77
 BEGIN RCH 1
 PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Subsegment 080101

Originated: March 1, 2006

Revised:

PLOT RCH 15 16 17

Subsegment 080101

Originated: March 1, 2006

Revised:

ATTACHMENT C

SUMMER PROJECTION MODEL INPUT AT
GRAPHIC PACKAGING CURRENT TECHNICAL GUIDELINE LIMITATIONS
Qal2e570.run

Subsegment 080101

Originated: March 1, 2006

Revised:

TITLE01 LOWER OUACHITA RIVER AUGUST PROJECTIONSTEADY STATE WQ RUN T
 TITLE02 O MEET CRITERIA
 TITLE03 NO CONSERVATIVE MINERAL I
 TITLE04 NO CONSERVATIVE MINERAL II
 TITLE05 NO CONSERVATIVE MINERAL III
 TITLE06 YES TEMPERATURE
 TITLE07 YES BIOCHEMICAL OXYGEN DEMAND
 TITLE08 YES ALGAE AS CHL-A IN UG/L
 TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
 (ORGANIC-P; DISSOLVED-P)
 TITLE10 YES NITROGEN CYCLE AS N IN MG/L
 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
 TITLE11 YES DISSOLVED OXYGEN IN MG/L
 TITLE12 NO FECAL COLIFORM IN NO./100 ML
 TITLE13 NO ARBITRARY NON-CONSERVATIVE
 ENDTITLE
 LIST DATA INPUT
 WRITE OPTIONAL SUMMARY
 NO FLOW AUGMENTATION
 STEADY STATE
 NO TRAP CHANNELS
 NO PRINT LCD/SOLAR DATA
 NO PLOT DO AND BOD DATA
 FIXED DNSTM CONC (YES=1)= 0. 5D-ULT BOD CONV K COEF = 0
 INPUT METRIC = 0. OUTPUT METRIC = 0.
 NUMBER OF REACHES = 17 NUMBER OF JUNCTIONS = 0
 NUM OF HEADWATERS = 1 NUMBER OF POINT LOADS = 17
 TIME STEP (HOURS) = 1.0 LNTH. COMP. ELEMENT (DX)= 0.25
 MAXIMUM ROUTE TIME (HRS)= 450. TIME INC. FOR RPT2 (HRS)= 3
 LATITUDE OF BASIN (DEG) = 32.5 LONGITUDE OF BASIN (DEG)= 92.0
 STANDARD MARIDIAN (DEG) = 90.0 DAY OF YEAR START TIME = 228.
 EVAP. COEF.,(AE) = 0.00042 EVAP. COEF.,(BE) = 0.00021
 ELEV. OF BASIN (ELEV) = 54.00 DUST ATTENUATION COEF. = 0.13
 ENDATA1
 O UPTAKE BY NH3 OXID(MG O/MG N)= 3.43 O UPTAKE BY NO2 OXID(MG O/MG N)= 1.14
 O PROD BY ALGAE (MG O/MG A) = 1.8 O UPTAKE BY ALGAE (MG O/MG A) = 2.30
 N CONTENT OF ALGAE (MG N/MG A) = .090 P CONTENT OF ALGAE (MG O/MG A) = 0.015
 ALG MAX SPEC GROWTH RATE(1/DAY)= 2.1 ALGAE RESPIRATION RATE (1/DAY) = 0.050
 N HALF SATURATION CONST (MG/L) = 0.20 P HALF SATURATION CONST (MG/L) = 0.04
 LIN ALG SHADE CO (1/H-UGCHA/L) = 0.0027 NLIN SHADE (1/H-(UGCHA/L)**2/3)= 0.0165
 LIGHT FUNCTION OPTION (LFNOPT) = 1. LIGHT SATURATION COEF (INT/MIN)= .066
 DAILY AVERAGING OPTION (LAVOPT)= 3. LIGHT AVERAGING FACTOR (AFACT) = 0.92
 NUMBER OF DAYLIGHT HOURS (DLH) = 14. TOTAL DAILY SOLAR RADTN (INT) = 1300.
 ALGY GROWTH CALC OPTION(LGROPT)= 1. ALGAL PREF FOR NH3-N (PREFN) = 0.5
 ALG/TEMP SOLR RAD FACTOR(TFACT)= 0.44 NITRIFICATION INHIBITION COEF = 0.6
 ENDATA1A
 THETA BOD DECA 1.047
 THETA BOD SETT 1.024
 THETA OXY TRAN 1.024
 THETA SOD RATE 1.065
 THETA ORGN DEC 1.047
 THETA ORGN SET 1.024
 THETA NH3 DECA 1.070
 THETA NH3 SRCE 1.074
 THETA NO2 DECA 1.047
 THETA PORC DEC 1.047
 THETA PORC SET 1.024
 THETA DISP SRC 1.074

Subsegment 080101

Originated: March 1, 2006

Revised:

| | | |
|-------|----------|-------|
| THETA | ALG GROW | 1.047 |
| THETA | ALG RESP | 1.047 |
| THETA | ALG SETT | 1.024 |

ENDATA1B

| | | | | | | | |
|--------|-------|---------|----------|------|--------|----|--------|
| STREAM | REACH | 1.RCH= | REACH 1 | FROM | 200.38 | TO | 195.38 |
| STREAM | REACH | 2.RCH= | REACH 2 | FROM | 195.38 | TO | 190.38 |
| STREAM | REACH | 3.RCH= | REACH 3 | FROM | 190.38 | TO | 185.38 |
| STREAM | REACH | 4.RCH= | REACH 4 | FROM | 185.38 | TO | 180.38 |
| STREAM | REACH | 5.RCH= | REACH 5 | FROM | 180.38 | TO | 175.38 |
| STREAM | REACH | 6.RCH= | REACH 6 | FROM | 175.38 | TO | 170.38 |
| STREAM | REACH | 7.RCH= | REACH 7 | FROM | 170.38 | TO | 165.38 |
| STREAM | REACH | 8.RCH= | REACH 8 | FROM | 165.38 | TO | 160.38 |
| STREAM | REACH | 9.RCH= | REACH 9 | FROM | 160.38 | TO | 155.38 |
| STREAM | REACH | 10.RCH= | REACH 10 | FROM | 155.38 | TO | 150.38 |
| STREAM | REACH | 11.RCH= | REACH 11 | FROM | 150.38 | TO | 145.38 |
| STREAM | REACH | 12.RCH= | REACH 12 | FROM | 145.38 | TO | 140.38 |
| STREAM | REACH | 13.RCH= | REACH 13 | FROM | 140.38 | TO | 135.38 |
| STREAM | REACH | 14.RCH= | REACH 14 | FROM | 135.38 | TO | 130.38 |
| STREAM | REACH | 15.RCH= | REACH 15 | FROM | 130.38 | TO | 125.38 |
| STREAM | REACH | 16.RCH= | REACH 16 | FROM | 125.38 | TO | 120.38 |
| STREAM | REACH | 17.RCH= | REACH 17 | FROM | 120.38 | TO | 117.38 |

ENDATA2

ENDATA3

ENDATA4

| | | | | | | | | |
|------------|------|-----|------|-----------|-------|----------|----------|------|
| HYDRAULICS | RCH= | 1. | 30.0 | 0.0001828 | .9789 | 14.00000 | 0.01628 | .035 |
| HYDRAULICS | RCH= | 2. | 30.0 | 0.0001895 | .9838 | 13.30000 | 0.01351 | .035 |
| HYDRAULICS | RCH= | 3. | 30.0 | 0.0002137 | .9795 | 12.40000 | 0.01226 | .035 |
| HYDRAULICS | RCH= | 4. | 30.0 | 0.0001425 | .9824 | 16.10000 | 0.01469 | .035 |
| HYDRAULICS | RCH= | 5. | 30.0 | 0.0001057 | .9859 | 21.20000 | 0.008562 | .035 |
| HYDRAULICS | RCH= | 6. | 30.0 | 0.0000928 | .9922 | 21.70000 | 0.004773 | .035 |
| HYDRAULICS | RCH= | 7. | 30.0 | 0.0000860 | .9934 | 21.70000 | 0.003175 | .035 |
| HYDRAULICS | RCH= | 8. | 30.0 | 0.0000795 | .9954 | 21.60000 | 0.002580 | .035 |
| HYDRAULICS | RCH= | 9. | 30.0 | 0.0000849 | .9960 | 21.60000 | 0.001333 | .035 |
| HYDRAULICS | RCH= | 10. | 30.0 | 0.0000918 | .9962 | 21.10000 | 0.002004 | .035 |
| HYDRAULICS | RCH= | 11. | 30.0 | 0.0000987 | .9971 | 20.90000 | 0.001502 | .035 |
| HYDRAULICS | RCH= | 12. | 30.0 | 0.0000812 | .9977 | 26.50000 | 0.001355 | .035 |
| HYDRAULICS | RCH= | 13. | 30.0 | 0.0000700 | .9985 | 32.30000 | 0.000794 | .035 |
| HYDRAULICS | RCH= | 14. | 30.0 | 0.0000678 | .9989 | 29.80000 | 0.000518 | .035 |
| HYDRAULICS | RCH= | 15. | 30.0 | 0.0000670 | .9994 | 27.30000 | 0.000153 | .035 |
| HYDRAULICS | RCH= | 16. | 30.0 | 0.0000675 | .9995 | 24.70000 | 0.000212 | .035 |
| HYDRAULICS | RCH= | 17. | 30.0 | 0.0000687 | .9999 | 22.50000 | 0.000055 | .035 |

Subsegment 080101

Originated: March 1, 2006

Revised:

ENDATA5

| | | | | | | | | |
|-----------------|-----|-------|-------|-------|----|-------|--------|---------|
| REACT COEF RCH= | 1. | 0.032 | 0.005 | .0000 | 1. | 0.198 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 2. | 0.032 | 0.005 | .0000 | 1. | 0.213 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 3. | 0.032 | 0.005 | .0000 | 1. | 0.230 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 4. | 0.032 | 0.005 | .0000 | 1. | 0.174 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 5. | 0.032 | 0.005 | .0000 | 1. | 0.138 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 6. | 0.032 | 0.005 | .0000 | 1. | 0.138 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 7. | 0.032 | 0.005 | .0083 | 1. | 0.140 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 8. | 0.032 | 0.005 | .0083 | 1. | 0.141 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 9. | 0.032 | 0.005 | .0083 | 1. | 0.142 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 10. | 0.032 | 0.005 | .0083 | 1. | 0.145 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 11. | 0.032 | 0.005 | .0083 | 1. | 0.147 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 12. | 0.032 | 0.005 | .0083 | 1. | 0.116 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 13. | 0.032 | 0.005 | .0083 | 1. | 0.095 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 14. | 0.032 | 0.005 | .0083 | 1. | 0.103 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 15. | 0.032 | 0.005 | .0083 | 1. | 0.113 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 16. | 0.032 | 0.005 | .0083 | 1. | 0.125 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 17. | 0.032 | 0.005 | .0083 | 1. | 0.137 | 0.0000 | 0.00E-4 |

ENDATA6

| | | | | | | | | | |
|-------------------|-----|-------|-------|-------|------|------|-----|-------|------|
| N AND P COEF RCH= | 1. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 2. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 3. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 4. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 5. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 6. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 7. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 8. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 9. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 10. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 11. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 12. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 13. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 14. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 15. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 16. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 17. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |

ENDATA6A

| | | | | | | | | | |
|---------------------|-----|------|------|------|-----|-----|-----|-----|-----|
| ALG/OTHER COEF RCH= | 1. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 2. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 3. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 4. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 5. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 6. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 7. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 8. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 9. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 10. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 11. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 12. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 13. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 14. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 15. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 16. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 17. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

ENDATA6B

| | | | | | | | | | |
|---------------------|----|------|------|------|------|-----|-----|-----|-----|
| INITIAL COND-1 RCH= | 1. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| INITIAL COND-1 RCH= | 2. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| INITIAL COND-1 RCH= | 3. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |

Subsegment 080101

Originated: March 1, 2006

Revised:

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INITIAL COND-1 RCH= 4. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 5. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 6. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 7. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 8. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 9. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 10. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 11. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 12. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 13. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 14. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 15. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 16. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 17. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
ENDATA7

INITIAL COND-2 RCH= 1. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 2. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 3. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 4. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 5. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 6. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 7. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 8. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 9. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 10. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 11. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 12. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 13. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 14. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 15. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 16. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 17. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
ENDATA7A

INCR INFLOW-1 RCH= 1. 3.0 89.3 4.50 00.0 0.0 0.0 .000 0.00 0.08
INCR INFLOW-1 RCH= 2. 3.0 89.3 4.50 00.0 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 3. 3.0 89.3 4.50 277.8 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 4. 3.0 89.3 4.50 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 5. 3.0 89.3 4.50 625.0 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 6. 3.0 89.3 4.50 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 7. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 8. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 9. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 10. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 11. 3.0 89.3 4.50 351.4 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 12. 3.0 89.3 4.50 351.4 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 13. 3.0 89.3 4.50 338.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 14. 3.0 89.3 4.50 306.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 15. 3.0 89.3 4.50 274.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 16. 3.0 89.3 4.50 242.8 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 17. 3.0 89.3 4.50 210.8 0.0 0.0 .000 0.00 0.0
ENDATA8

INCR INFLOW-2 RCH= 1. 0.0 0.00 0.00 0.00 0.00 0.56 0.00
INCR INFLOW-2 RCH= 2. 0.0 0.00 0.00 0.00 0.00 9.72 0.00
INCR INFLOW-2 RCH= 3. 0.0 0.00 0.00 0.00 0.00 19.44 0.00
INCR INFLOW-2 RCH= 4. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 5. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 6. 0.0 16.70 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 7. 0.0 16.70 0.00 0.00 0.00 0.00 0.00

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Subsegment 080101

Originated: March 1, 2006

Revised:

INCR INFLOW-2 RCH= 8. 0.0 16.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 9. 0.0 16.70 0.00 0.00 0.00 0.00 2.78 0.00
 INCR INFLOW-2 RCH= 10. 0.0 16.70 0.00 0.00 0.00 0.00 4.17 0.00
 INCR INFLOW-2 RCH= 11. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 12. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 13. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 14. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 15. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 16. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 17. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00

ENDATA8A
 ENDTA9
 HEADWTR-1 HDW= 1.0 REACH 1 5200. 91.2 5.80 5.60 0.00 0.0 0.0
 ENDTA10
 HEADWTR-2 HDW= 1.0 0.0 0.0 13.8 0.72 0.03 0.02 0.17 0.04 0.02
 ENDTA10A
 POINTLD-1 PTL= 1BARTHOLOMEW 0 60.00 84.4 6.10 6.9 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 2OUCH POW IN 0 -10.62 74.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 3OUCH POW OUT 0 2.40 99.0 6.00 5.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 4ENT STER IN 0 -307.54 74.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 5ENT STER OUT 0 307.54 112.0 5.60 5.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 6STERLINGTON 0 0.29 86.0 2.00 69.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 7KOCH 001 0 4.82 86.0 2.00 10.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 8ANGUS 002 0 1.45 86.0 2.00 106.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 9B DE L'OUTRE 0 4.80 86.9 6.00 4.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 10B D'ARBONNE 0 0.10 87.1 6.00 4.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 11CHAUVIN B 0 2.40 84.4 6.10 19.6 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 12ENT MON IN 0 -224.30 75.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 13ENT MON OUT 0 224.30 106.0 4.91 7.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 14JUDY SLOUGH 0 92.83 83.3 2.00 86.4 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 15MONROE POTW 0 23.21 86.0 2.00 23.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 16CHENERE CR 0 0.50 83.3 6.20 10.3 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 17CYPRESS CR 0 0.00 86.0 0.00 0.0 0.0 0.0 0.0 0.0

ENDATA11
 POINTLD-2 PTL= 1 0.0 0.0 14.8 0.60 0.02 0.02 0.19 0.18 0.03
 POINTLD-2 PTL= 2 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 3 0.0 0.0 0.0 0.70 0.03 0.02 0.16 0.08 0.02
 POINTLD-2 PTL= 4 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 5 0.0 0.0 0.0 0.70 0.03 0.02 0.20 0.10 0.02
 POINTLD-2 PTL= 6 0.0 0.0 100.0 10.00 5.00 0.00 0.70 2.50 1.00
 POINTLD-2 PTL= 7 0.0 0.0 0.0 0.76 16.50 0.00 0.58 0.24 0.15
 POINTLD-2 PTL= 8 0.0 0.0 0.0 8.32 0.31 0.00 34.33 0.33 0.01
 POINTLD-2 PTL= 9 0.0 0.0 11.3 0.69 0.02 0.01 0.08 0.07 0.01
 POINTLD-2 PTL= 10 0.0 0.0 11.3 0.60 0.02 0.01 0.07 0.05 0.01
 POINTLD-2 PTL= 11 0.0 0.0 24.9 1.60 1.06 0.02 0.19 0.35 0.54
 POINTLD-2 PTL= 12 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 13 0.0 0.0 0.0 0.67 0.04 0.04 0.30 0.15 0.03
 POINTLD-2 PTL= 14 0.0 0.0 12.2 2.98 1.50 0.00 0.12 0.69 0.70
 POINTLD-2 PTL= 15 0.0 0.0 0.0 0.67 1.33 0.00 6.36 0.95 0.29
 POINTLD-2 PTL= 16 0.0 0.0 11.3 0.69 0.02 0.00 0.03 0.05 0.01
 POINTLD-2 PTL= 17 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00

ENDATA11A
 ENDTA12
 ENDTA13
 ENDTA13A
 LOCAL CLIMATOLOGY 0 0 0.20 81.00 71.80 30.00 6.77
 BEGIN RCH 1
 PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Subsegment 080101

Originated: March 1, 2006

Revised:

PLOT RCH 15 16 17

Subsegment 080101

Originated: March 1, 2006

Revised:

ATTACHMENT D

SUMMER PROJECTION MODEL INPUT AT
GRAPHIC PACKAGING PROPOSED TECHNICAL GUIDELINE LIMITATIONS
Qal2e572.run

Subsegment 080101

Originated: March 1, 2006

Revised:

TITLE01 LOWER OUACHITA RIVER AUGUST PROJECTIONSTEADY STATE WQ RUN T
 TITLE02 O MEET CRITERIA
 TITLE03 NO CONSERVATIVE MINERAL I
 TITLE04 NO CONSERVATIVE MINERAL II
 TITLE05 NO CONSERVATIVE MINERAL III
 TITLE06 YES TEMPERATURE
 TITLE07 YES BIOCHEMICAL OXYGEN DEMAND
 TITLE08 YES ALGAE AS CHL-A IN UG/L
 TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
 (ORGANIC-P; DISSOLVED-P)
 TITLE10 YES NITROGEN CYCLE AS N IN MG/L
 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
 TITLE11 YES DISSOLVED OXYGEN IN MG/L
 TITLE12 NO FECAL COLIFORM IN NO./100 ML
 TITLE13 NO ARBITRARY NON-CONSERVATIVE
 ENDTITLE
 LIST DATA INPUT
 WRITE OPTIONAL SUMMARY
 NO FLOW AUGMENTATION
 STEADY STATE
 NO TRAP CHANNELS
 NO PRINT LCD/SOLAR DATA
 NO PLOT DO AND BOD DATA
 FIXED DNSTM CONC (YES=1)= 0. 5D-ULT BOD CONV K COEF = 0
 INPUT METRIC = 0. OUTPUT METRIC = 0.
 NUMBER OF REACHES = 17 NUMBER OF JUNCTIONS = 0
 NUM OF HEADWATERS = 1 NUMBER OF POINT LOADS = 17
 TIME STEP (HOURS) = 1.0 LNTH. COMP. ELEMENT (DX)= 0.25
 MAXIMUM ROUTE TIME (HRS)= 450. TIME INC. FOR RPT2 (HRS)= 3
 LATITUDE OF BASIN (DEG) = 32.5 LONGITUDE OF BASIN (DEG)= 92.0
 STANDARD MARIDIAN (DEG) = 90.0 DAY OF YEAR START TIME = 228.
 EVAP. COEF.,(AE) = 0.00042 EVAP. COEF.,(BE) = 0.00021
 ELEV. OF BASIN (ELEV) = 54.00 DUST ATTENUATION COEF. = 0.13
 ENDATA1
 O UPTAKE BY NH3 OXID(MG O/MG N)= 3.43 O UPTAKE BY NO2 OXID(MG O/MG N)= 1.14
 O PROD BY ALGAE (MG O/MG A) = 1.8 O UPTAKE BY ALGAE (MG O/MG A) = 2.30
 N CONTENT OF ALGAE (MG N/MG A) = .090 P CONTENT OF ALGAE (MG O/MG A) = 0.015
 ALG MAX SPEC GROWTH RATE(1/DAY)= 2.1 ALGAE RESPIRATION RATE (1/DAY) = 0.050
 N HALF SATURATION CONST (MG/L) = 0.20 P HALF SATURATION CONST (MG/L) = 0.04
 LIN ALG SHADE CO (1/H-UGCHA/L) = 0.0027 NLIN SHADE (1/H-(UGCHA/L)**2/3)= 0.0165
 LIGHT FUNCTION OPTION (LFNOPT) = 1. LIGHT SATURATION COEF (INT/MIN)= .066
 DAILY AVERAGING OPTION (LAVOPT)= 3. LIGHT AVERAGING FACTOR (AFACT) = 0.92
 NUMBER OF DAYLIGHT HOURS (DLH) = 14. TOTAL DAILY SOLAR RADTN (INT) = 1300.
 ALGY GROWTH CALC OPTION(LGROPT)= 1. ALGAL PREF FOR NH3-N (PREFN) = 0.5
 ALG/TEMP SOLR RAD FACTOR(TFACT)= 0.44 NITRIFICATION INHIBITION COEF = 0.6
 ENDATA1A
 THETA BOD DECA 1.047
 THETA BOD SETT 1.024
 THETA OXY TRAN 1.024
 THETA SOD RATE 1.065
 THETA ORGN DEC 1.047
 THETA ORGN SET 1.024
 THETA NH3 DECA 1.070
 THETA NH3 SRCE 1.074
 THETA NO2 DECA 1.047
 THETA PORC DEC 1.047
 THETA PORC SET 1.024
 THETA DISP SRC 1.074

Subsegment 080101

Originated: March 1, 2006

Revised:

| | | |
|-------|----------|-------|
| THETA | ALG GROW | 1.047 |
| THETA | ALG RESP | 1.047 |
| THETA | ALG SETT | 1.024 |

ENDATA1B

| | | | | | | | | |
|--------|-------|---------|-------|----|------|--------|----|--------|
| STREAM | REACH | 1.RCH= | REACH | 1 | FROM | 200.38 | TO | 195.38 |
| STREAM | REACH | 2.RCH= | REACH | 2 | FROM | 195.38 | TO | 190.38 |
| STREAM | REACH | 3.RCH= | REACH | 3 | FROM | 190.38 | TO | 185.38 |
| STREAM | REACH | 4.RCH= | REACH | 4 | FROM | 185.38 | TO | 180.38 |
| STREAM | REACH | 5.RCH= | REACH | 5 | FROM | 180.38 | TO | 175.38 |
| STREAM | REACH | 6.RCH= | REACH | 6 | FROM | 175.38 | TO | 170.38 |
| STREAM | REACH | 7.RCH= | REACH | 7 | FROM | 170.38 | TO | 165.38 |
| STREAM | REACH | 8.RCH= | REACH | 8 | FROM | 165.38 | TO | 160.38 |
| STREAM | REACH | 9.RCH= | REACH | 9 | FROM | 160.38 | TO | 155.38 |
| STREAM | REACH | 10.RCH= | REACH | 10 | FROM | 155.38 | TO | 150.38 |
| STREAM | REACH | 11.RCH= | REACH | 11 | FROM | 150.38 | TO | 145.38 |
| STREAM | REACH | 12.RCH= | REACH | 12 | FROM | 145.38 | TO | 140.38 |
| STREAM | REACH | 13.RCH= | REACH | 13 | FROM | 140.38 | TO | 135.38 |
| STREAM | REACH | 14.RCH= | REACH | 14 | FROM | 135.38 | TO | 130.38 |
| STREAM | REACH | 15.RCH= | REACH | 15 | FROM | 130.38 | TO | 125.38 |
| STREAM | REACH | 16.RCH= | REACH | 16 | FROM | 125.38 | TO | 120.38 |
| STREAM | REACH | 17.RCH= | REACH | 17 | FROM | 120.38 | TO | 117.38 |

ENDATA2

ENDATA3

ENDATA4

| | | | | | | | | |
|------------|------|-----|------|-----------|-------|----------|----------|------|
| HYDRAULICS | RCH= | 1. | 30.0 | 0.0001828 | .9789 | 14.00000 | 0.01628 | .035 |
| HYDRAULICS | RCH= | 2. | 30.0 | 0.0001895 | .9838 | 13.30000 | 0.01351 | .035 |
| HYDRAULICS | RCH= | 3. | 30.0 | 0.0002137 | .9795 | 12.40000 | 0.01226 | .035 |
| HYDRAULICS | RCH= | 4. | 30.0 | 0.0001425 | .9824 | 16.10000 | 0.01469 | .035 |
| HYDRAULICS | RCH= | 5. | 30.0 | 0.0001057 | .9859 | 21.20000 | 0.008562 | .035 |
| HYDRAULICS | RCH= | 6. | 30.0 | 0.0000928 | .9922 | 21.70000 | 0.004773 | .035 |
| HYDRAULICS | RCH= | 7. | 30.0 | 0.0000860 | .9934 | 21.70000 | 0.003175 | .035 |
| HYDRAULICS | RCH= | 8. | 30.0 | 0.0000795 | .9954 | 21.60000 | 0.002580 | .035 |
| HYDRAULICS | RCH= | 9. | 30.0 | 0.0000849 | .9960 | 21.60000 | 0.001333 | .035 |
| HYDRAULICS | RCH= | 10. | 30.0 | 0.0000918 | .9962 | 21.10000 | 0.002004 | .035 |
| HYDRAULICS | RCH= | 11. | 30.0 | 0.0000987 | .9971 | 20.90000 | 0.001502 | .035 |
| HYDRAULICS | RCH= | 12. | 30.0 | 0.0000812 | .9977 | 26.50000 | 0.001355 | .035 |
| HYDRAULICS | RCH= | 13. | 30.0 | 0.0000700 | .9985 | 32.30000 | 0.000794 | .035 |
| HYDRAULICS | RCH= | 14. | 30.0 | 0.0000678 | .9989 | 29.80000 | 0.000518 | .035 |
| HYDRAULICS | RCH= | 15. | 30.0 | 0.0000670 | .9994 | 27.30000 | 0.000153 | .035 |
| HYDRAULICS | RCH= | 16. | 30.0 | 0.0000675 | .9995 | 24.70000 | 0.000212 | .035 |
| HYDRAULICS | RCH= | 17. | 30.0 | 0.0000687 | .9999 | 22.50000 | 0.000055 | .035 |

Subsegment 080101

Originated: March 1, 2006

Revised:

ENDATA5

| | | | | | | | | |
|-----------------|-----|-------|-------|-------|----|-------|--------|---------|
| REACT COEF RCH= | 1. | 0.032 | 0.005 | .0000 | 1. | 0.198 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 2. | 0.032 | 0.005 | .0000 | 1. | 0.213 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 3. | 0.032 | 0.005 | .0000 | 1. | 0.230 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 4. | 0.032 | 0.005 | .0000 | 1. | 0.174 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 5. | 0.032 | 0.005 | .0000 | 1. | 0.138 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 6. | 0.032 | 0.005 | .0000 | 1. | 0.138 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 7. | 0.032 | 0.005 | .0083 | 1. | 0.140 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 8. | 0.032 | 0.005 | .0083 | 1. | 0.141 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 9. | 0.032 | 0.005 | .0083 | 1. | 0.142 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 10. | 0.032 | 0.005 | .0083 | 1. | 0.145 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 11. | 0.032 | 0.005 | .0083 | 1. | 0.147 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 12. | 0.032 | 0.005 | .0083 | 1. | 0.116 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 13. | 0.032 | 0.005 | .0083 | 1. | 0.095 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 14. | 0.032 | 0.005 | .0083 | 1. | 0.103 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 15. | 0.032 | 0.005 | .0083 | 1. | 0.113 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 16. | 0.032 | 0.005 | .0083 | 1. | 0.125 | 0.0000 | 0.00E-4 |
| REACT COEF RCH= | 17. | 0.032 | 0.005 | .0083 | 1. | 0.137 | 0.0000 | 0.00E-4 |

ENDATA6

| | | | | | | | | | |
|-------------------|-----|-------|-------|-------|------|------|-----|-------|------|
| N AND P COEF RCH= | 1. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 2. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 3. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 4. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 5. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 6. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 7. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 8. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 9. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 10. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 11. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 12. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 13. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 14. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 15. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 16. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |
| N AND P COEF RCH= | 17. | 0.013 | 0.002 | 0.200 | 0.00 | 0.25 | .01 | 0.002 | 0.00 |

ENDATA6A

| | | | | | | | | | |
|---------------------|-----|------|------|------|-----|-----|-----|-----|-----|
| ALG/OTHER COEF RCH= | 1. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 2. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 3. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 4. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 5. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 6. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 7. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 8. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 9. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 10. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 11. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 12. | 50.0 | 0.05 | 0.90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 13. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 14. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 15. | 50.0 | 0.05 | 0.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 16. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALG/OTHER COEF RCH= | 17. | 50.0 | 0.05 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

ENDATA6B

| | | | | | | | | | |
|---------------------|----|------|------|------|------|-----|-----|-----|-----|
| INITIAL COND-1 RCH= | 1. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| INITIAL COND-1 RCH= | 2. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| INITIAL COND-1 RCH= | 3. | 89.3 | 4.50 | 5.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |

Subsegment 080101

Originated: March 1, 2006

Revised:

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INITIAL COND-1 RCH= 4. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 5. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 6. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 7. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 8. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 9. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 10. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 11. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 12. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 13. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 14. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 15. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 16. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 17. 89.3 4.50 5.00 0.00 0.0 0.0 0.0 0.0 0.0
ENDATA7

INITIAL COND-2 RCH= 1. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 2. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 3. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 4. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 5. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 6. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 7. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 8. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 9. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 10. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 11. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 12. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 13. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 14. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 15. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 16. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 17. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
ENDATA7A

INCR INFLOW-1 RCH= 1. 3.0 89.3 4.50 00.0 0.0 0.0 .000 0.00 0.08
INCR INFLOW-1 RCH= 2. 3.0 89.3 4.50 00.0 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 3. 3.0 89.3 4.50 277.8 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 4. 3.0 89.3 4.50 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 5. 3.0 89.3 4.50 625.0 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 6. 3.0 89.3 4.50 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 7. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 8. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 9. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 10. 3.0 89.3 4.50 416.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 11. 3.0 89.3 4.50 351.4 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 12. 3.0 89.3 4.50 351.4 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 13. 3.0 89.3 4.50 338.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 14. 3.0 89.3 4.50 306.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 15. 3.0 89.3 4.50 274.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 16. 3.0 89.3 4.50 242.8 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 17. 3.0 89.3 4.50 210.8 0.0 0.0 .000 0.00 0.0
ENDATA8

INCR INFLOW-2 RCH= 1. 0.0 0.00 0.00 0.00 0.00 0.56 0.00
INCR INFLOW-2 RCH= 2. 0.0 0.00 0.00 0.00 0.00 9.72 0.00
INCR INFLOW-2 RCH= 3. 0.0 0.00 0.00 0.00 0.00 19.44 0.00
INCR INFLOW-2 RCH= 4. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 5. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 6. 0.0 16.70 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 7. 0.0 16.70 0.00 0.00 0.00 0.00 0.00

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Subsegment 080101

Originated: March 1, 2006

Revised:

INCR INFLOW-2 RCH= 8. 0.0 16.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 9. 0.0 16.70 0.00 0.00 0.00 0.00 2.78 0.00
 INCR INFLOW-2 RCH= 10. 0.0 16.70 0.00 0.00 0.00 0.00 4.17 0.00
 INCR INFLOW-2 RCH= 11. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 12. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 13. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 14. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 15. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 16. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 17. 0.0 7.70 0.00 0.00 0.00 0.00 0.00 0.00

ENDATA8A
 ENDTA9
 HEADWTR-1 HDW= 1.0 REACH 1 5800. 91.2 5.80 5.60 0.00 0.0 0.0
 ENDTA10
 HEADWTR-2 HDW= 1.0 0.0 0.0 13.8 0.72 0.03 0.02 0.17 0.04 0.02
 ENDTA10A
 POINTLD-1 PTL= 1BARTHOLOMEW 0 60.00 84.4 6.10 6.9 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 2OUCH POW IN 0 -10.62 74.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 3OUCH POW OUT 0 2.40 99.0 6.00 5.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 4ENT STER IN 0 -307.54 74.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 5ENT STER OUT 0 307.54 112.0 5.60 5.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 6STERLINGTON 0 0.29 86.0 2.00 69.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 7KOCH 001 0 4.82 86.0 2.00 10.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 8ANGUS 002 0 1.45 86.0 2.00 106.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 9B DE L'OUTRE 0 4.80 86.9 6.00 4.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 10B D'ARBONNE 0 0.10 87.1 6.00 4.7 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 11CHAUVIN B 0 2.40 84.4 6.10 19.6 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 12ENT MON IN 0 -224.30 75.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 13ENT MON OUT 0 224.30 106.0 4.91 7.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 14JUDY SLOUGH 0 120.90 83.3 2.00 86.4 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 15MONROE POTW 0 23.21 86.0 2.00 23.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 16CHENERE CR 0 0.50 83.3 6.20 10.3 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 17CYPRESS CR 0 0.00 86.0 0.00 0.0 0.0 0.0 0.0 0.0

ENDATA11
 POINTLD-2 PTL= 1 0.0 0.0 14.8 0.60 0.02 0.02 0.19 0.18 0.03
 POINTLD-2 PTL= 2 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 3 0.0 0.0 0.0 0.70 0.03 0.02 0.16 0.08 0.02
 POINTLD-2 PTL= 4 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 5 0.0 0.0 0.0 0.70 0.03 0.02 0.20 0.10 0.02
 POINTLD-2 PTL= 6 0.0 0.0 100.0 10.00 5.00 0.00 0.70 2.50 1.00
 POINTLD-2 PTL= 7 0.0 0.0 0.0 0.76 16.50 0.00 0.58 0.24 0.15
 POINTLD-2 PTL= 8 0.0 0.0 0.0 8.32 0.31 0.00 34.33 0.33 0.01
 POINTLD-2 PTL= 9 0.0 0.0 11.3 0.69 0.02 0.01 0.08 0.07 0.01
 POINTLD-2 PTL= 10 0.0 0.0 11.3 0.60 0.02 0.01 0.07 0.05 0.01
 POINTLD-2 PTL= 11 0.0 0.0 24.9 1.60 1.06 0.02 0.19 0.35 0.54
 POINTLD-2 PTL= 12 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 13 0.0 0.0 0.0 0.67 0.04 0.04 0.30 0.15 0.03
 POINTLD-2 PTL= 14 0.0 0.0 12.2 2.98 1.50 0.00 0.12 0.69 0.70
 POINTLD-2 PTL= 15 0.0 0.0 0.0 0.67 1.33 0.00 6.36 0.95 0.29
 POINTLD-2 PTL= 16 0.0 0.0 11.3 0.69 0.02 0.00 0.03 0.05 0.01
 POINTLD-2 PTL= 17 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00

ENDATA11A
 ENDTA12
 ENDTA13
 ENDTA13A
 LOCAL CLIMATOLOGY 0 0 0.20 81.00 71.80 30.00 6.77
 BEGIN RCH 1
 PLOT RCH 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Subsegment 080101

Originated: March 1, 2006

Revised:

PLOT RCH 15 16 17

Subsegment 080101

Originated: March 1, 2006

Revised:

ATTACHMENT E

WINTER SEASON PROJECTION TMDL SPREADSHEET
Ouachita Nov TMDL 2

LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL
WORKSHEET - WITHOUT REDUCTION: BENTHIC SOURCES

Input to blue shaded areas

LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL
WORKSHEET - WITHOUT REDUCTION: BENTHIC SOURCES

Input to blue shaded areas

| Reach No. | Reach Length (mi) | Calibration Benthic Source Rates | | | | | MOS & Reduction | | Projection Input Source Rates | | | Projection Stream Temp (°F) | Projection Stream Width (ft) | Projection Oxygen Demanding Load Allocation | | Projection MOS | |
|-----------|-------------------|--|---------------------------------|-------------------------------|-----------------------------|---------------------|-----------------|---------------|--|-------------------------------|-----------------------------|-----------------------------|------------------------------|---|----------------------------|---|----------------------------|
| | | NH ₃ -N (mg/ft ² -d) | Theta for NH ₃ Decay | Dis P (mg/ft ² -d) | SOD (gm/ft ² -d) | Theta for SOD Decay | MOS (%) | Reduction (%) | NH ₃ -N (gm/ft ² -d) | Dis P (mg/ft ² -d) | SOD (mg/ft ² -d) | | | NH ₃ -N (lb O ₂ /d) | SOD (lb O ₂ /d) | NH ₃ -N (lb O ₂ /d) | SOD (lb O ₂ /d) |
| 1 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 66.6 | 404 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 66.6 | 405 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 66.6 | 400 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 66.6 | 445 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 66.6 | 464 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 5.00 | 0.00 | 1.070 | 0.00 | 0.00 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0000 | 66.6 | 507 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 549 | 0.0 | 0.3 | 0.0 | 0.0 |
| 8 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 591 | 0.0 | 0.3 | 0.0 | 0.0 |
| 9 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 556 | 0.0 | 0.3 | 0.0 | 0.0 |
| 10 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 523 | 0.0 | 0.3 | 0.0 | 0.0 |
| 11 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 490 | 0.0 | 0.2 | 0.0 | 0.0 |
| 12 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 468 | 0.0 | 0.2 | 0.0 | 0.0 |
| 13 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 445 | 0.0 | 0.2 | 0.0 | 0.0 |
| 14 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 497 | 0.0 | 0.2 | 0.0 | 0.0 |
| 15 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 548 | 0.0 | 0.3 | 0.0 | 0.0 |
| 16 | 5.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 601 | 0.0 | 0.3 | 0.0 | 0.0 |
| 17 | 3.00 | 0.00 | 1.070 | 0.00 | 0.01 | 1.065 | 10 | 0 | 0.00 | 0.00 | 0.0111 | 66.6 | 647 | 0.0 | 0.2 | 0.0 | 0.0 |
| | | | | | | | | | | | | Total | | 0.0 | 2.8 | 0.0 | 0.3 |

LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL WORKSHEET - WITHOUT REDUCTION: HEADWATER AND TRIBUTARIES

Input to blue shaded areas

LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL WORKSHEET - WITHOUT REDUCTION: HEADWATER AND TRIBUTARIES

Input to blue shaded areas

LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL WORKSHEET - WITHOUT
 REDUCTION: INCREMENTAL FLOW

Input to blue shaded areas

LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL WORKSHEET - WITHOUT REDUCTION:
 INCREMENTAL FLOW

Input to blue shaded areas

| REACH | Calibration Flows and Concentrations | | | | Calibration Loads | | | Projection Flows and Equivalent Concentrations Prior to MOS and Reduction | | | | MOS & Reduction | | Projection Input Concentrations | | | Projection Oxygen Demanding Load Allocation | | | Projection MOS | | | |
|-------|--------------------------------------|--------------|--------------|--------------|-------------------|----------------|----------------|---|--------------|--------------|--------------|-----------------|---------------|---------------------------------|--------------|--------------|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----|
| | FLOW (cfs/reach) | UCBOD (mg/l) | ORG-N (mg/l) | ORG-P (mg/l) | UCBOD (lb/day) | ORG-N (lb/day) | ORG-P (lb/day) | FLOW (cfs/reach) | UCBOD (mg/l) | ORG-N (mg/l) | ORG-P (mg/l) | MOS (%) | Reduction (%) | UCBOD (mg/l) | ORG-N (mg/l) | ORG-P (mg/l) | UCBOD (lb O ₂ /day) | ORG-N (lb O ₂ /day) | ORG-P (lb O ₂ /day) | UCBOD (lb O ₂ /day) | ORG-N (lb O ₂ /day) | ORG-P (lb O ₂ /day) | |
| 1 | 50.0 | 0.0 | 0.00 | 0.04 | 0.0 | 0.0 | 10.8 | 3.0 | 0.0 | 0.0 | 0.7 | 10 | 0 | 0.0 | 0.0 | 0.74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 50.0 | 0.0 | 0.00 | 0.70 | 0.0 | 0.0 | 188.6 | 3.0 | 0.0 | 0.0 | 11.7 | 10 | 0 | 0.0 | 0.0 | 12.96 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 50.0 | 20.0 | 0.00 | 1.40 | 5387.6 | 0.0 | 377.1 | 3.0 | 333.3 | 0.0 | 23.3 | 10 | 0 | 370.4 | 0.0 | 25.93 | 5387.6 | 0.0 | 0.0 | 598.6 | 0.0 | 0.0 | 0.0 |
| 4 | 50.0 | 40.0 | 0.00 | 0.00 | 10775.3 | 0.0 | 0.0 | 3.0 | 666.7 | 0.0 | 0.0 | 10 | 0 | 740.7 | 0.0 | 0.00 | 10775.3 | 0.0 | 0.0 | 1197.3 | 0.0 | 0.0 | 0.0 |
| 5 | 50.0 | 45.0 | 0.00 | 0.00 | 12122.2 | 0.0 | 0.0 | 3.0 | 750.0 | 0.0 | 0.0 | 10 | 0 | 833.3 | 0.0 | 0.00 | 12122.2 | 0.0 | 0.0 | 1346.9 | 0.0 | 0.0 | 0.0 |
| 6 | 50.0 | 40.0 | 1.20 | 0.00 | 10775.3 | 323.3 | 0.0 | 3.0 | 666.7 | 20.0 | 0.0 | 10 | 0 | 740.7 | 22.2 | 0.00 | 10775.3 | 1477.3 | 0.0 | 1197.3 | 164.1 | 0.0 | 0.0 |
| 7 | 50.0 | 30.0 | 1.20 | 0.00 | 8081.5 | 323.3 | 0.0 | 3.0 | 500.0 | 20.0 | 0.0 | 10 | 0 | 555.6 | 22.2 | 0.00 | 8081.5 | 1477.3 | 0.0 | 897.9 | 164.1 | 0.0 | 0.0 |
| 8 | 50.0 | 30.0 | 1.20 | 0.00 | 8081.5 | 323.3 | 0.0 | 3.0 | 500.0 | 20.0 | 0.0 | 10 | 0 | 555.6 | 22.2 | 0.00 | 8081.5 | 1477.3 | 0.0 | 897.9 | 164.1 | 0.0 | 0.0 |
| 9 | 50.0 | 30.0 | 1.20 | 0.20 | 8081.5 | 323.3 | 53.9 | 3.0 | 500.0 | 20.0 | 3.3 | 10 | 0 | 555.6 | 22.2 | 3.70 | 8081.5 | 1477.3 | 0.0 | 897.9 | 164.1 | 0.0 | 0.0 |
| 10 | 50.0 | 30.0 | 1.20 | 0.30 | 8081.5 | 323.3 | 80.8 | 3.0 | 500.0 | 20.0 | 5.0 | 10 | 0 | 555.6 | 22.2 | 5.56 | 8081.5 | 1477.3 | 0.0 | 897.9 | 164.1 | 0.0 | 0.0 |
| 11 | 23.0 | 55.0 | 1.20 | 0.00 | 6815.4 | 148.7 | 0.0 | 3.0 | 421.7 | 9.2 | 0.0 | 10 | 0 | 468.5 | 10.2 | 0.00 | 6815.4 | 679.6 | 0.0 | 757.3 | 75.5 | 0.0 | 0.0 |
| 12 | 23.0 | 55.0 | 1.20 | 0.00 | 6815.4 | 148.7 | 0.0 | 3.0 | 421.7 | 9.2 | 0.0 | 10 | 0 | 468.5 | 10.2 | 0.00 | 6815.4 | 679.6 | 0.0 | 757.3 | 75.5 | 0.0 | 0.0 |
| 13 | 23.0 | 53.0 | 1.20 | 0.00 | 6567.5 | 148.7 | 0.0 | 3.0 | 406.3 | 9.2 | 0.0 | 10 | 0 | 451.5 | 10.2 | 0.00 | 6567.5 | 679.6 | 0.0 | 729.7 | 75.5 | 0.0 | 0.0 |
| 14 | 23.0 | 48.0 | 1.20 | 0.00 | 5948.0 | 148.7 | 0.0 | 3.0 | 368.0 | 9.2 | 0.0 | 10 | 0 | 408.9 | 10.2 | 0.00 | 5948.0 | 679.6 | 0.0 | 660.9 | 75.5 | 0.0 | 0.0 |
| 15 | 23.0 | 43.0 | 1.20 | 0.00 | 5328.4 | 148.7 | 0.0 | 3.0 | 329.7 | 9.2 | 0.0 | 10 | 0 | 366.3 | 10.2 | 0.00 | 5328.4 | 679.6 | 0.0 | 592.0 | 75.5 | 0.0 | 0.0 |
| 16 | 23.0 | 38.0 | 1.20 | 0.00 | 4708.8 | 148.7 | 0.0 | 3.0 | 291.3 | 9.2 | 0.0 | 10 | 0 | 323.7 | 10.2 | 0.00 | 4708.8 | 679.6 | 0.0 | 523.2 | 75.5 | 0.0 | 0.0 |
| 17 | 23.0 | 33.0 | 1.20 | 0.00 | 4089.2 | 148.7 | 0.0 | 3.0 | 253.0 | 9.2 | 0.0 | 10 | 0 | 281.1 | 10.2 | 0.00 | 4089.2 | 679.6 | 0.0 | 454.4 | 75.5 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | Total | 111658.8 | 12143.3 | | | 12406.5 | 1349.3 | | |

| LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL WORKSHEET - WITHOUT REDUCTION: POINT SOURCES - CURRENT TECHNICAL GUIDELINE LIMITS | | | | | | | | | | | | LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL WORKSHEET - WITHOUT REDUCTION: POINT SOURCES - CURRENT TECHNICAL GUIDELINE LIMITS | | | | | | | | | | | | | | |
|---|---------------------|---|--------------|--------------------|---------------------------|--------------|--------------|--------------|---------------------------|--------------------------|--------------|---|---------------------------|---------------------------|--------------|------------------|--------------------|---------|------------------------|--|------------------------------|--|------------------------------|------------------------------|------------------------------|------------------------------|
| Input to blue shaded areas | | Input to blue shaded areas | | Permit limitations | | | | | | | | Input to blue shaded areas | | Permit limitations | | | | | | | | Projection Oxygen Demanding Waste Load Allocations | | | | |
| Name | Ouachita 7Q10 (cfs) | Calibration Data (Ouachita River WQ at intake for power plants) | | | | | | | Projection Concentrations | | | | | | | Projection Flows | | | | Projection Oxygen Demanding Waste Load Allocations | | | Projection MOS | | | |
| | | Chl-a (ug/l) | UCBOD (mg/l) | Org-N (mg/l) | NH ₃ -N (mg/l) | NOx-N (mg/l) | Org-P (mg/l) | DIS-P (mg/l) | Chl-a (ug/l) | CBOD ₅ (mg/l) | UCBOD (mg/l) | Org-N (mg/l) | NH ₃ -N (mg/l) | NO ₃ -N (mg/l) | Org-P (mg/l) | Dis-P (mg/l) | Design Flows (mgd) | MOS (%) | Projection Flows (mgd) | Projection Flows (cfs) | UCBOD (lb O ₂ /d) | Org-N (lb O ₂ /d) | NH3-N (lb O ₂ /d) | UCBOD (lb O ₂ /d) | Org-N (lb O ₂ /d) | NH3-N (lb O ₂ /d) |
| Ouachita Power intake | | | | | | | | | | | | | | | | | 5.49 | 20 | 6.87 | 10.62 | | | | | | |
| Ouachita Power 001&002 | | 0 | 4.9 | 0.6 | 0.02 | 0.2 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.15 | 0.03 | 0.02 | 1.24 | 20 | 1.55 | 2.40 | 41.7 | 23.7 | 0.9 | 10.4 | 5.9 | 0.2 |
| Entergy Sterlington 001&002 | | 0 | 4.9 | | 0.02 | 0.2 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.15 | 0.03 | 0.02 | 159.00 | 20 | 198.75 | 307.47 | 5337.4 | 3030.0 | 121.2 | 1334.3 | 757.5 | 30.3 |
| Town of Sterlington POTW 001 | | | | | | | | | 100 | 30.0 | 69.0 | 10.00 | 5.00 | 0.70 | 2.50 | 1.00 | 0.15 | 20 | 0.19 | 0.29 | 86.3 | 57.2 | 28.6 | 21.6 | 14.3 | 7.1 |
| Koch Nitrogen 001 | | 0 | 10.7 | 0.76 | 0.4 | 0.58 | 0.24 | 0.15 | 0 | 4.7 | 10.7 | 0.76 | 16.50 | 0.58 | 0.24 | 0.15 | 2.49 | 20 | 3.11 | 4.82 | 222.1 | 72.1 | 1565.9 | 55.5 | 18.0 | 391.5 |
| Angus Chemical 002 | | 0 | 0.0 | 8.32 | 0.31 | 34.33 | 0.33 | 0.01 | 0 | 46.1 | 106.0 | 8.32 | 0.31 | 34.33 | 0.33 | 0.01 | 0.75 | 20 | 0.94 | 1.45 | 663.2 | 237.8 | 8.9 | 165.8 | 59.5 | 2.2 |
| Entergy Monroe 001 | | 0 | 5.1 | 0.57 | 0.02 | 0.22 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.26 | 0.07 | 0.03 | 116.00 | 20 | 145.00 | 224.32 | 3893.9 | 2210.6 | 88.4 | 973.5 | 552.7 | 22.1 |
| Graphic Packaging 001* | 1231 | 12.2 | 86.4 | 2.98 | 1.5 | 0.12 | 0.69 | 0.7 | 12.2 | 37.6 | 86.4 | 2.98 | 1.50 | 0.12 | 0.69 | 0.70 | 11.29 | 20 | 14.11 | 21.82 | 8136.1 | 1281.8 | 645.2 | 2034.0 | 320.5 | 161.3 |
| City of Monroe POTW 001 | | 0 | 24.3 | 1.83 | 0.34 | 6.36 | 0.95 | 0.29 | 0 | 10.0 | 23.0 | 0.67 | 1.33 | 6.36 | 0.95 | 0.29 | 12.00 | 20 | 15.00 | 23.21 | 2301.8 | 306.4 | 608.3 | 575.5 | 76.6 | 152.1 |
| Ouachita flow-----> | 1231 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current tech limit in lb/d daily max BOD5 | | | 29738 | | | | | | | | | | | | | | | | | | | | | | | |
| Current tech limit in lb/d mo avg BOD5 | | | 15047 | | | | | | | | | | | | | | | | | | | | | | | |
| New GP winter allocation in lb/d mo avg BOD5 @ Ouachita critical flow | | | 3537 | | | | | | | | | | | | | | | | | | | | | | | |
| New GP winter allocation in lb/d daily max BOD5 @ Ouachita critical flow | | | 6991 | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent GP outfall 001 mo avg flow in mgd | | | 11.29 | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent (to current tech limit) GP outfall 001 mo avg flow in mgd | | | 48.01 | | | | | | | | | | | | | | | | | | | | | | | |
| Projection GP outfall 001 mo avg flow in cfs for current tech limit | | | 92.83 | | | | | | | | | | | | | | | | | | | | | | | |
| Proposed tech limit in lb/d mo avg BOD5 | | | 19597 | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent (to proposed tech limit) GP outfall 001 mo avg flow in mgd | | | 62.52 | | | | | | | | | | | | | | | | | | | | | | | |
| Projection GP outfall 001 mo avg flow in cfs for proposed tech limit | | | 120.90 | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

* Using the measured UCBOD as typical, the projection discharge flow (including a margin of safety), is calculated from the Ouachita river state line 7Q10 using the formula for the mass discharge limitation (lb/d BOD₅ = 5.95Q-240).

| LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL WORKSHEET - WITHOUT REDUCTION: POINT SOURCES - PROPOSED TECHNICAL GUIDELINE LIMITS | | | | | | | | | | | | | | LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL WORKSHEET - WITHOUT REDUCTION: POINT SOURCES - PROPOSED TECHNICAL GUIDELINE LIMITS | | | | | | | | | | | | | | |
|--|---------------------|---|--------------|--------------|---------------------------|--------------|--------------|--------------|---------------------------|--------------------------|--------------|--------------|---------------------------|--|--------------|----------------------------|--------------------|--------------------|------------------------|--|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|--|--|
| Input to blue shaded areas | | Input to blue shaded areas | | | | | | | Permit limitations | | | | | | | Input to blue shaded areas | | Permit limitations | | | | | | | | | | |
| Name | Ouachita 7Q10 (cfs) | Calibration Data (Ouachita River WQ at intake for power plants) | | | | | | | Projection Concentrations | | | | | | | Projection Flows | | | | Projection Oxygen Demanding Waste Load Allocations | | | Projection MOS | | | | | |
| | | Chl-a (ug/l) | UCBOD (mg/l) | Org-N (mg/l) | NH ₃ -N (mg/l) | NOx-N (mg/l) | Org-P (mg/l) | DIS-P (mg/l) | Chl-a (ug/l) | CBOD ₅ (mg/l) | UCBOD (mg/l) | Org-N (mg/l) | NH ₃ -N (mg/l) | NO ₃ -N (mg/l) | Org-P (mg/l) | Dis-P (mg/l) | Design Flows (mgd) | MOS (%) | Projection Flows (mgd) | Projection Flows (cfs) | UCBOD (lb O ₂ /d) | Org-N (lb O ₂ /d) | NH3-N (lb O ₂ /d) | UCBOD (lb O ₂ /d) | Org-N (lb O ₂ /d) | NH3-N (lb O ₂ /d) | | |
| Ouachita Power intake | | | | | | | | | | | | | | | | | 5.49 | 20 | 6.87 | 10.62 | | | | | | | | |
| Ouachita Power 001&002 | | 0 | 4.9 | 0.6 | 0.02 | 0.2 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.15 | 0.03 | 0.02 | 1.24 | 20 | 1.55 | 2.40 | 41.7 | 23.7 | 0.9 | 10.4 | 5.9 | 0.2 | | |
| Entergy Sterlington 001&002 | | 0 | 4.9 | | 0.02 | 0.2 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.15 | 0.03 | 0.02 | 159.00 | 20 | 198.75 | 307.47 | 5337.4 | 3030.0 | 121.2 | 1334.3 | 757.5 | 30.3 | | |
| Town of Sterlington POTW 001 | | | | | | | | | 100 | 30.0 | 69.0 | 10.00 | 5.00 | 0.70 | 2.50 | 1.00 | 0.15 | 20 | 0.19 | 0.29 | 86.3 | 57.2 | 28.6 | 21.6 | 14.3 | 7.1 | | |
| Koch Nitrogen 001 | | 0 | 10.7 | 0.76 | 0.4 | 0.58 | 0.24 | 0.15 | 0 | 4.7 | 10.7 | 0.76 | 16.50 | 0.58 | 0.24 | 0.15 | 2.49 | 20 | 3.11 | 4.82 | 222.1 | 72.1 | 1565.9 | 55.5 | 18.0 | 391.5 | | |
| Angus Chemical 002 | | 0 | 0.0 | 8.32 | 0.31 | 34.33 | 0.33 | 0.01 | 0 | 46.1 | 106.0 | 8.32 | 0.31 | 34.33 | 0.33 | 0.01 | 0.75 | 20 | 0.94 | 1.45 | 663.2 | 237.8 | 8.9 | 165.8 | 59.5 | 2.2 | | |
| Entergy Monroe 001 | | 0 | 5.1 | 0.57 | 0.02 | 0.22 | 0.06 | 0.02 | 0 | 1.8 | 4.0 | 0.50 | 0.02 | 0.26 | 0.07 | 0.03 | 116.00 | 20 | 145.00 | 224.32 | 3893.9 | 2210.6 | 88.4 | 973.5 | 552.7 | 22.1 | | |
| Graphic Packaging 001* | 1231 | 12.2 | 86.4 | 2.98 | 1.5 | 0.12 | 0.69 | 0.7 | 12.2 | 37.6 | 86.4 | 2.98 | 1.50 | 0.12 | 0.69 | 0.70 | 12.04 | 20 | 15.05 | 23.29 | 8682.3 | 1367.9 | 688.5 | 2170.6 | 342.0 | 172.1 | | |
| City of Monroe POTW 001 | | 0 | 24.3 | 1.83 | 0.34 | 6.36 | 0.95 | 0.29 | 0 | 10.0 | 23.0 | 0.67 | 1.33 | 6.36 | 0.95 | 0.29 | 12.00 | 20 | 15.00 | 23.21 | 2301.8 | 306.4 | 608.3 | 575.5 | 76.6 | 152.1 | | |
| Ouachita flow-----> | 1231 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current tech limit in lb/d daily max BOD5 | | 29738 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current tech limit in lb/d mo avg BOD5 | | 15047 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New GP winter allocation in lb/d mo avg BOD5 @ Ouachita critical flow | | 3775 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New GP winter allocation in lb/d daily max BOD5 @ Ouachita critical flow | | 7460 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent GP outfall 001 mo avg flow in mgd | | 12.04 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent (to current tech limit) GP outfall 001 mo avg flow in mgd | | 48.01 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Projection GP outfall 001 mo avg flow in cfs for current tech limit | | 92.83 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Proposed tech limit in lb/d mo avg BOD5 | | 19597 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equivalent (to proposed tech limit) GP outfall 001 mo avg flow in mgd | | 62.52 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Projection GP outfall 001 mo avg flow in cfs for proposed tech limit | | 120.90 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | 21228.8 | | 7305.8 | | 3110.8 | | 5307.2 | | 1826.4 | | 777.7 | | | | | | | | | | | | | | | | |

* Using the measured UCBOD as typical, the projection discharge flow (including a margin of safety), is calculated from the Ouachita river state line 7Q10 using the formula for the mass discharge limitation ($lb/d BOD_5 = 5.95Q - 240$).

Subsegment 080101

Originated: March 1, 2006

Revised:

**LOWER OUACHITA RIVER NOVEMBER PROJECTION AND TMDL
WORKSHEET - WITHOUT REDUCTION: TMDL**

| CURRENT GRAPHIC PACKAGING TECHNICAL GUIDELINE LIMITATIONS | | | | |
|--|-------------------------|------------------------|-------------------------|--------------------------|
| PARAMETER | WLA (lb/day) | LA (lb/day) | MOS (lb/day) | TMDL (lb/day) |
| UCBOD | 20682.6 | 139056.8 | 20621.4 | 180360.7 |
| ORG-N | 7219.7 | 27779.3 | 4891.5 | 39890.5 |
| NH ₃ -N | 3067.4 | 765.2 | 851.9 | 4684.5 |
| SOD | -- | 2.8 | 0.3 | 3.1 |
| TOTAL | 30969.7 | 167604.0 | 26365.1 | 224938.9 |

| PROPOSED GRAPHIC PACKAGING TECHNICAL GUIDELINE LIMITATIONS | | | | |
|---|-------------------------|------------------------|-------------------------|--------------------------|
| PARAMETER | WLA (lb/day) | LA (lb/day) | MOS (lb/day) | TMDL (lb/day) |
| UCBOD | 21228.8 | 139056.8 | 20621.4 | 180906.9 |
| ORG-N | 7305.8 | 27779.3 | 4891.5 | 39976.6 |
| NH ₃ -N | 3110.8 | 765.2 | 851.9 | 4727.8 |
| SOD | -- | 2.8 | 0.3 | 3.1 |
| TOTAL | 31645.3 | 167604.0 | 26365.1 | 225614.4 |

Subsegment 080101

Originated: March 1, 2006

Revised:

ATTACHMENT F

PROJECTION MODEL INPUT AT OUACHITA RIVER WINTER CRITICAL CONDITIONS

Current Graphic Packaging Technical Guideline Limitations

Qal2e707.run

Subsegment 080101

Originated: March 1, 2006

Revised:

TITLE01 OUACHITA RIVER NOVEMBER PROJECTION @ 7Q10 - STEADY STATE WQ
 TITLE02 RUN WITHOUT LOAD REDUCTION - GP AT CURRENT TECH GUIDELINE
 LIMITS
 TITLE03 NO CONSERVATIVE MINERAL I
 TITLE04 NO CONSERVATIVE MINERAL II
 TITLE05 NO CONSERVATIVE MINERAL III
 TITLE06 YES TEMPERATURE
 TITLE07 YES BIOCHEMICAL OXYGEN DEMAND
 TITLE08 YES ALGAE AS CHL-A IN UG/L
 TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
 (ORGANIC-P; DISSOLVED-P)
 TITLE10 YES NITROGEN CYCLE AS N IN MG/L
 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
 TITLE11 YES DISSOLVED OXYGEN IN MG/L
 TITLE12 NO FECAL COLIFORM IN NO./100 ML
 TITLE13 NO ARBITRARY NON-CONSERVATIVE
 ENDTITLE
 LIST DATA INPUT
 WRITE OPTIONAL SUMMARY
 NO FLOW AUGMENTATION
 STEADY STATE
 NO TRAP CHANNELS
 NO PRINT LCD/SOLAR DATA
 NO PLOT DO AND BOD DATA
 FIXED DNSTM CONC (YES=1)= 0. 5D-ULT BOD CONV K COEF = 0
 INPUT METRIC = 0. OUTPUT METRIC = 0.
 NUMBER OF REACHES = 17 NUMBER OF JUNCTIONS = 0
 NUM OF HEADWATERS = 1 NUMBER OF POINT LOADS = 17
 TIME STEP (HOURS) = 1.0 LNTH. COMP. ELEMENT (DX)= 0.25
 MAXIMUM ROUTE TIME (HRS)= 450. TIME INC. FOR RPT2 (HRS)= 3
 LATITUDE OF BASIN (DEG) = 32.5 LONGITUDE OF BASIN (DEG)= 92.0
 STANDARD MARIDIAN (DEG) = 90.0 DAY OF YEAR START TIME = 319.
 EVAP. COEF.,(AE) = 0.00022 EVAP. COEF.,(BE) = 0.00011
 ELEV. OF BASIN (ELEV) = 54.00 DUST ATTENUATION COEF. = 0.13
 ENDDATA1
 O UPTAKE BY NH3 OXID(MG O/MG N)= 3.43 O UPTAKE BY NO2 OXID(MG O/MG N)= 1.14
 O PROD BY ALGAE (MG O/MG A) = 1.8 O UPTAKE BY ALGAE (MG O/MG A) = 2.30
 N CONTENT OF ALGAE (MG N/MG A) = .090 P CONTENT OF ALGAE (MG O/MG A) = 0.015
 ALG MAX SPEC GROWTH RATE(1/DAY)= 2.1 ALGAE RESPIRATION RATE (1/DAY) = 0.050
 N HALF SATURATION CONST (MG/L) = 0.20 P HALF SATURATION CONST (MG/L) = 0.04
 LIN ALG SHADE CO (1/H-UGCHA/L) = 0.0027 NLIN SHADE (1/H-(UGCHA/L)**2/3)= 0.0165
 LIGHT FUNCTION OPTION (LFNOPT) = 1. LIGHT SATURATION COEF (INT/MIN)= .066
 DAILY AVERAGING OPTION (LAVOPT)= 3. LIGHT AVERAGING FACTOR (AFACT) = 0.92
 NUMBER OF DAYLIGHT HOURS (DLH) = 14. TOTAL DAILY SOLAR RADTN (INT) = 1300.
 ALGY GROWTH CALC OPTION(LGROPT)= 1. ALGAL PREF FOR NH3-N (PREFN) = 0.5
 ALG/TEMP SOLR RAD FACTOR(TFACT)= 0.44 NITRIFICATION INHIBITION COEF = 0.6
 ENDDATA1A
 THETA BOD DECA 1.047
 THETA BOD SETT 1.024
 THETA OXY TRAN 1.024
 THETA SOD RATE 1.065
 THETA ORGN DEC 1.047
 THETA ORGN SET 1.024
 THETA NH3 DECA 1.070
 THETA NH3 SRCE 1.074
 THETA NO2 DECA 1.047
 THETA PORC DEC 1.047
 THETA PORC SET 1.024

Subsegment 080101

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|-----------------|----------|----------------|-------|--|----------|--------|
| THETA | DISP SRC | 1.074 | | | | |
| THETA | ALG GROW | 1.047 | | | | |
| THETA | ALG RESP | 1.047 | | | | |
| THETA | ALG SETT | 1.024 | | | | |
| ENDATA1B | | | | | | |
| STREAM REACH | 1.RCH= | REACH 1 | FROM | 200.38 | TO | 195.38 |
| STREAM REACH | 2.RCH= | REACH 2 | FROM | 195.38 | TO | 190.38 |
| STREAM REACH | 3.RCH= | REACH 3 | FROM | 190.38 | TO | 185.38 |
| STREAM REACH | 4.RCH= | REACH 4 | FROM | 185.38 | TO | 180.38 |
| STREAM REACH | 5.RCH= | REACH 5 | FROM | 180.38 | TO | 175.38 |
| STREAM REACH | 6.RCH= | REACH 6 | FROM | 175.38 | TO | 170.38 |
| STREAM REACH | 7.RCH= | REACH 7 | FROM | 170.38 | TO | 165.38 |
| STREAM REACH | 8.RCH= | REACH 8 | FROM | 165.38 | TO | 160.38 |
| STREAM REACH | 9.RCH= | REACH 9 | FROM | 160.38 | TO | 155.38 |
| STREAM REACH | 10.RCH= | REACH 10 | FROM | 155.38 | TO | 150.38 |
| STREAM REACH | 11.RCH= | REACH 11 | FROM | 150.38 | TO | 145.38 |
| STREAM REACH | 12.RCH= | REACH 12 | FROM | 145.38 | TO | 140.38 |
| STREAM REACH | 13.RCH= | REACH 13 | FROM | 140.38 | TO | 135.38 |
| STREAM REACH | 14.RCH= | REACH 14 | FROM | 135.38 | TO | 130.38 |
| STREAM REACH | 15.RCH= | REACH 15 | FROM | 130.38 | TO | 125.38 |
| STREAM REACH | 16.RCH= | REACH 16 | FROM | 125.38 | TO | 120.38 |
| STREAM REACH | 17.RCH= | REACH 17 | FROM | 120.38 | TO | 117.38 |
| ENDATA2 | | | | | | |
| ENDATA3 | | | | | | |
| FLAG FIELD RCH= | 1. | 20. | | 1.2. | | |
| FLAG FIELD RCH= | 2. | 20. | | 2.2.2.2.2.2.2.6.7.6.7.6.2.2.6.2.2.6.2.2.2. | | |
| FLAG FIELD RCH= | 3. | 20. | | 2.2.2.2.6.2.2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 4. | 20. | | 2. | | |
| FLAG FIELD RCH= | 5. | 20. | | 2. | | |
| FLAG FIELD RCH= | 6. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.6.2.2.2. | | |
| FLAG FIELD RCH= | 7. | 20. | | 2.2.2.7.6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 8. | 20. | | 2.6.2.2. | | |
| FLAG FIELD RCH= | 9. | 20. | | 2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 10. | 20. | | 2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 11. | 20. | | 2. | | |
| FLAG FIELD RCH= | 12. | 20. | | 2. | | |
| FLAG FIELD RCH= | 13. | 20. | | 2. | | |
| FLAG FIELD RCH= | 14. | 20. | | 2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 15. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 16. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 17. | 12. | | 2.2.2.2.2.2.2.2.2.2.5. | | |
| ENDATA4 | | | | | | |
| HYDRAULICS RCH= | 1. | 30.0 0.0001828 | .9789 | 14.00000 | 0.01628 | .035 |
| HYDRAULICS RCH= | 2. | 30.0 0.0001895 | .9838 | 13.30000 | 0.01351 | .035 |
| HYDRAULICS RCH= | 3. | 30.0 0.0002137 | .9795 | 12.40000 | 0.01226 | .035 |
| HYDRAULICS RCH= | 4. | 30.0 0.0001425 | .9824 | 16.10000 | 0.01469 | .035 |
| HYDRAULICS RCH= | 5. | 30.0 0.0001057 | .9859 | 21.20000 | 0.008562 | .035 |
| HYDRAULICS RCH= | 6. | 30.0 0.0000928 | .9922 | 21.70000 | 0.004773 | .035 |
| HYDRAULICS RCH= | 7. | 30.0 0.0000860 | .9934 | 21.70000 | 0.003175 | .035 |
| HYDRAULICS RCH= | 8. | 30.0 0.0000795 | .9954 | 21.60000 | 0.002580 | .035 |
| HYDRAULICS RCH= | 9. | 30.0 0.0000849 | .9960 | 21.60000 | 0.001333 | .035 |
| HYDRAULICS RCH= | 10. | 30.0 0.0000918 | .9962 | 21.10000 | 0.002004 | .035 |
| HYDRAULICS RCH= | 11. | 30.0 0.0000987 | .9971 | 20.90000 | 0.001502 | .035 |
| HYDRAULICS RCH= | 12. | 30.0 0.0000812 | .9977 | 26.50000 | 0.001355 | .035 |
| HYDRAULICS RCH= | 13. | 30.0 0.0000700 | .9985 | 32.30000 | 0.000794 | .035 |
| HYDRAULICS RCH= | 14. | 30.0 0.0000678 | .9989 | 29.80000 | 0.000518 | .035 |
| HYDRAULICS RCH= | 15. | 30.0 0.0000670 | .9994 | 27.30000 | 0.000153 | .035 |
| HYDRAULICS RCH= | 16. | 30.0 0.0000675 | .9995 | 24.70000 | 0.000212 | .035 |

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HYDRAULICS RCH= 17.      30.0 0.0000687      .9999 22.50000 0.000055      .035
ENDATA5
REACT COEF RCH= 1. 0.032 0.005 .0000 1. 0.223 0.0000 0.00E-4
REACT COEF RCH= 2. 0.032 0.005 .0000 1. 0.239 0.0000 0.00E-4
REACT COEF RCH= 3. 0.032 0.005 .0000 1. 0.259 0.0000 0.00E-4
REACT COEF RCH= 4. 0.032 0.005 .0000 1. 0.196 0.0000 0.00E-4
REACT COEF RCH= 5. 0.032 0.005 .0000 1. 0.155 0.0000 0.00E-4
REACT COEF RCH= 6. 0.032 0.005 .0000 1. 0.156 0.0000 0.00E-4
REACT COEF RCH= 7. 0.032 0.005 .0111 1. 0.158 0.0000 0.00E-4
REACT COEF RCH= 8. 0.032 0.005 .0111 1. 0.159 0.0000 0.00E-4
REACT COEF RCH= 9. 0.032 0.005 .0111 1. 0.161 0.0000 0.00E-4
REACT COEF RCH= 10. 0.032 0.005 .0111 1. 0.164 0.0000 0.00E-4
REACT COEF RCH= 11. 0.032 0.005 .0111 1. 0.166 0.0000 0.00E-4
REACT COEF RCH= 12. 0.032 0.005 .0111 1. 0.131 0.0000 0.00E-4
REACT COEF RCH= 13. 0.032 0.005 .0111 1. 0.108 0.0000 0.00E-4
REACT COEF RCH= 14. 0.032 0.005 .0111 1. 0.117 0.0000 0.00E-4
REACT COEF RCH= 15. 0.032 0.005 .0111 1. 0.128 0.0000 0.00E-4
REACT COEF RCH= 16. 0.032 0.005 .0111 1. 0.142 0.0000 0.00E-4
REACT COEF RCH= 17. 0.032 0.005 .0111 1. 0.156 0.0000 0.00E-4
ENDATA6
N AND P COEF RCH= 1. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 2. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 3. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 4. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 5. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 6. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 7. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 8. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 9. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 10. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 11. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 12. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 13. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 14. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 15. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 16. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 17. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
ENDATA6A
ALG/OTHER COEF RCH= 1. 50.0 0.05 0.72 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 2. 50.0 0.05 0.72 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 3. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 4. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 5. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 6. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 7. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 8. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 9. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 10. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 11. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 12. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 13. 50.0 0.05 0.82 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 14. 50.0 0.05 0.82 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 15. 50.0 0.05 0.82 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 16. 50.0 0.05 0.72 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 17. 50.0 0.05 0.72 0.0 0.0 0.0 0.0
ENDATA6B
INITIAL COND-1 RCH= 1. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 2. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0

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INITIAL COND-1 RCH= 3. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 4. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 5. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 6. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 7. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 8. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 9. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 10. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 11. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 12. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 13. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 14. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 15. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 16. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 17. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
ENDATA7
INITIAL COND-2 RCH= 1. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 2. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 3. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 4. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 5. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 6. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 7. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 8. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 9. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 10. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 11. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 12. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 13. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 14. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 15. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 16. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 17. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
ENDATA7A
INCR INFLOW-1 RCH= 1. 3.0 66.6 5.00 00.0 0.0 0.0 .000 0.00 0.08
INCR INFLOW-1 RCH= 2. 3.0 66.6 5.00 00.0 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 3. 3.0 66.6 5.00 370.4 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 4. 3.0 66.6 5.00 740.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 5. 3.0 66.6 5.00 833.3 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 6. 3.0 66.6 5.00 740.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 7. 3.0 66.6 5.00 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 8. 3.0 66.6 5.00 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 9. 3.0 66.6 5.00 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 10. 3.0 66.6 5.00 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 11. 3.0 66.6 5.00 468.5 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 12. 3.0 66.6 5.00 468.5 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 13. 3.0 66.6 5.00 451.5 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 14. 3.0 66.6 5.00 408.9 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 15. 3.0 66.6 5.00 366.3 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 16. 3.0 66.6 5.00 323.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 17. 3.0 66.6 5.00 281.1 0.0 0.0 .000 0.00 0.0
ENDATA8
INCR INFLOW-2 RCH= 1. 0.0 0.00 0.00 0.00 0.00 0.74 0.00
INCR INFLOW-2 RCH= 2. 0.0 0.00 0.00 0.00 0.00 12.96 0.00
INCR INFLOW-2 RCH= 3. 0.0 0.00 0.00 0.00 0.00 25.93 0.00
INCR INFLOW-2 RCH= 4. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 5. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 6. 0.0 22.20 0.00 0.00 0.00 0.00 0.00

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INCR INFLOW-2 RCH= 7. 0.0 22.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 8. 0.0 22.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 9. 0.0 22.20 0.00 0.00 0.00 0.00 3.70 0.00
 INCR INFLOW-2 RCH= 10. 0.0 22.20 0.00 0.00 0.00 0.00 5.56 0.00
 INCR INFLOW-2 RCH= 11. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 12. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 13. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 14. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 15. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 16. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 17. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
ENDATA8A
ENDATA9
 HEADWTR-1 HDW= 1.0 REACH 1 1231. 65.5 7.50 5.60 0.00 0.0 0.0
ENDATA10
 HEADWTR-2 HDW= 1.0 0.0 0.0 13.8 0.72 0.03 0.02 0.17 0.04 0.02
ENDATA10A
 POINTLD-1 PTL= 1BARTHOLOMEW 0 69.00 60.3 7.90 8.1 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 2OUCH POW IN 0 -10.62 74.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 3OUCH POW OUT 0 2.40 99.0 6.00 5.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 4ENT STER IN 0 -307.54 74.1 0.00 0.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 5ENT STER OUT 0 307.54 112.0 7.70 5.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 6STERLINGTON 0 0.29 86.0 2.00 69.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 7KOCHEOOL 0 4.82 86.0 2.00 10.7 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 8ANGUS 002 0 1.45 86.0 2.00 106.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 9B DE L'OUTRE 0 13.10 62.8 7.70 5.6 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 10B D'ARBONNE 0 0.00 65.8 7.50 5.6 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 11CHAUVIN B 0 2.40 60.3 7.90 23.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 12ENT MON IN 0 -224.30 75.1 0.00 0.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 13ENT MON OUT 0 224.30 106.0 6.75 7.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 14JUDY SLOUGH 0 21.82 59.9 2.00 86.4 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 15MONROE POTW 0 23.21 86.0 2.00 23.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 16CHENERE CR 0 0.50 59.9 8.00 12.1 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 17CYPRESS CR 0 0.00 86.0 0.00 0.0 0.0 0.0 0.0 0.0 0.0
ENDATA11
 POINTLD-2 PTL= 1 0.0 0.0 17.4 0.70 0.02 0.02 0.22 0.21 0.03
 POINTLD-2 PTL= 2 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 3 0.0 0.0 0.0 0.70 0.03 0.02 0.16 0.08 0.02
 POINTLD-2 PTL= 4 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 5 0.0 0.0 0.0 0.70 0.03 0.02 0.20 0.10 0.02
 POINTLD-2 PTL= 6 0.0 0.0 100.0 10.00 5.00 0.00 0.70 2.50 1.00
 POINTLD-2 PTL= 7 0.0 0.0 0.0 0.76 16.50 0.00 0.58 0.24 0.15
 POINTLD-2 PTL= 8 0.0 0.0 0.0 8.32 0.31 0.00 34.33 0.33 0.01
 POINTLD-2 PTL= 9 0.0 0.0 13.3 0.81 0.02 0.02 0.08 0.08 0.01
 POINTLD-2 PTL= 10 0.0 0.0 13.3 0.71 0.02 0.02 0.07 0.06 0.01
 POINTLD-2 PTL= 11 0.0 0.0 29.3 1.88 1.24 0.02 0.22 0.41 0.63
 POINTLD-2 PTL= 12 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 13 0.0 0.0 0.0 0.67 0.04 0.04 0.30 0.15 0.03
 POINTLD-2 PTL= 14 0.0 0.0 12.2 2.98 1.50 0.00 0.12 0.69 0.70
 POINTLD-2 PTL= 15 0.0 0.0 0.0 0.67 1.33 0.00 6.36 0.95 0.29
 POINTLD-2 PTL= 16 0.0 0.0 13.3 0.81 0.02 0.00 0.03 0.06 0.01
 POINTLD-2 PTL= 17 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
 LOCAL CLIMATOLOGY 0 0 0.20 55.70 51.70 30.00 8.71
 BEGIN RCH 1

Subsegment 080101

Originated: March 1, 2006

Revised:

Subsegment 080101

Originated: March 1, 2006

Revised:

ATTACHMENT G

PROJECTION MODEL INPUT AT OUACHITA RIVER WINTER CRITICAL CONDITIONS

Proposed Graphic Packaging Technical Guideline Limitations

Qal2e708.run

Subsegment 080101

Originated: March 1, 2006

Revised:

TITLE01 OUACHITA RIVER NOVEMBER PROJECTION @ 7Q10 - STEADY STATE WQ
 TITLE02 RUN WITHOUT LOAD REDUCTION - GP AT CURRENT TECH GUIDELINE
 LIMITS
 TITLE03 NO CONSERVATIVE MINERAL I
 TITLE04 NO CONSERVATIVE MINERAL II
 TITLE05 NO CONSERVATIVE MINERAL III
 TITLE06 YES TEMPERATURE
 TITLE07 YES BIOCHEMICAL OXYGEN DEMAND
 TITLE08 YES ALGAE AS CHL-A IN UG/L
 TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
 (ORGANIC-P; DISSOLVED-P)
 TITLE10 YES NITROGEN CYCLE AS N IN MG/L
 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
 TITLE11 YES DISSOLVED OXYGEN IN MG/L
 TITLE12 NO FECAL COLIFORM IN NO./100 ML
 TITLE13 NO ARBITRARY NON-CONSERVATIVE
 ENDTITLE
 LIST DATA INPUT
 WRITE OPTIONAL SUMMARY
 NO FLOW AUGMENTATION
 STEADY STATE
 NO TRAP CHANNELS
 NO PRINT LCD/SOLAR DATA
 NO PLOT DO AND BOD DATA
 FIXED DNSTM CONC (YES=1)= 0. 5D-ULT BOD CONV K COEF = 0
 INPUT METRIC = 0. OUTPUT METRIC = 0.
 NUMBER OF REACHES = 17 NUMBER OF JUNCTIONS = 0
 NUM OF HEADWATERS = 1 NUMBER OF POINT LOADS = 17
 TIME STEP (HOURS) = 1.0 LNTH. COMP. ELEMENT (DX)= 0.25
 MAXIMUM ROUTE TIME (HRS)= 450. TIME INC. FOR RPT2 (HRS)= 3
 LATITUDE OF BASIN (DEG) = 32.5 LONGITUDE OF BASIN (DEG)= 92.0
 STANDARD MARIDIAN (DEG) = 90.0 DAY OF YEAR START TIME = 319.
 EVAP. COEF.,(AE) = 0.00022 EVAP. COEF.,(BE) = 0.00011
 ELEV. OF BASIN (ELEV) = 54.00 DUST ATTENUATION COEF. = 0.13
 ENDDATA1
 O UPTAKE BY NH3 OXID(MG O/MG N)= 3.43 O UPTAKE BY NO2 OXID(MG O/MG N)= 1.14
 O PROD BY ALGAE (MG O/MG A) = 1.8 O UPTAKE BY ALGAE (MG O/MG A) = 2.30
 N CONTENT OF ALGAE (MG N/MG A) = .090 P CONTENT OF ALGAE (MG O/MG A) = 0.015
 ALG MAX SPEC GROWTH RATE(1/DAY)= 2.1 ALGAE RESPIRATION RATE (1/DAY) = 0.050
 N HALF SATURATION CONST (MG/L) = 0.20 P HALF SATURATION CONST (MG/L) = 0.04
 LIN ALG SHADE CO (1/H-UGCHA/L) = 0.0027 NLIN SHADE (1/H-(UGCHA/L)**2/3)= 0.0165
 LIGHT FUNCTION OPTION (LFNOPT) = 1. LIGHT SATURATION COEF (INT/MIN)= .066
 DAILY AVERAGING OPTION (LAVOPT)= 3. LIGHT AVERAGING FACTOR (AFACT) = 0.92
 NUMBER OF DAYLIGHT HOURS (DLH) = 14. TOTAL DAILY SOLAR RADTN (INT) = 1300.
 ALGY GROWTH CALC OPTION(LGROPT)= 1. ALGAL PREF FOR NH3-N (PREFN) = 0.5
 ALG/TEMP SOLR RAD FACTOR(TFACT)= 0.44 NITRIFICATION INHIBITION COEF = 0.6
 ENDDATA1A
 THETA BOD DECA 1.047
 THETA BOD SETT 1.024
 THETA OXY TRAN 1.024
 THETA SOD RATE 1.065
 THETA ORGN DEC 1.047
 THETA ORGN SET 1.024
 THETA NH3 DECA 1.070
 THETA NH3 SRCE 1.074
 THETA NO2 DECA 1.047
 THETA PORC DEC 1.047
 THETA PORC SET 1.024

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|-----------------|----------|----------------|-------|--|----------|--------|
| THETA | DISP SRC | 1.074 | | | | |
| THETA | ALG GROW | 1.047 | | | | |
| THETA | ALG RESP | 1.047 | | | | |
| THETA | ALG SETT | 1.024 | | | | |
| ENDATA1B | | | | | | |
| STREAM REACH | 1.RCH= | REACH 1 | FROM | 200.38 | TO | 195.38 |
| STREAM REACH | 2.RCH= | REACH 2 | FROM | 195.38 | TO | 190.38 |
| STREAM REACH | 3.RCH= | REACH 3 | FROM | 190.38 | TO | 185.38 |
| STREAM REACH | 4.RCH= | REACH 4 | FROM | 185.38 | TO | 180.38 |
| STREAM REACH | 5.RCH= | REACH 5 | FROM | 180.38 | TO | 175.38 |
| STREAM REACH | 6.RCH= | REACH 6 | FROM | 175.38 | TO | 170.38 |
| STREAM REACH | 7.RCH= | REACH 7 | FROM | 170.38 | TO | 165.38 |
| STREAM REACH | 8.RCH= | REACH 8 | FROM | 165.38 | TO | 160.38 |
| STREAM REACH | 9.RCH= | REACH 9 | FROM | 160.38 | TO | 155.38 |
| STREAM REACH | 10.RCH= | REACH 10 | FROM | 155.38 | TO | 150.38 |
| STREAM REACH | 11.RCH= | REACH 11 | FROM | 150.38 | TO | 145.38 |
| STREAM REACH | 12.RCH= | REACH 12 | FROM | 145.38 | TO | 140.38 |
| STREAM REACH | 13.RCH= | REACH 13 | FROM | 140.38 | TO | 135.38 |
| STREAM REACH | 14.RCH= | REACH 14 | FROM | 135.38 | TO | 130.38 |
| STREAM REACH | 15.RCH= | REACH 15 | FROM | 130.38 | TO | 125.38 |
| STREAM REACH | 16.RCH= | REACH 16 | FROM | 125.38 | TO | 120.38 |
| STREAM REACH | 17.RCH= | REACH 17 | FROM | 120.38 | TO | 117.38 |
| ENDATA2 | | | | | | |
| ENDATA3 | | | | | | |
| FLAG FIELD RCH= | 1. | 20. | | 1.2. | | |
| FLAG FIELD RCH= | 2. | 20. | | 2.2.2.2.2.2.2.6.7.6.7.6.2.2.6.2.6.2.2.2. | | |
| FLAG FIELD RCH= | 3. | 20. | | 2.2.2.2.6.2.2.2.2.6.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 4. | 20. | | 2. | | |
| FLAG FIELD RCH= | 5. | 20. | | 2. | | |
| FLAG FIELD RCH= | 6. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.6.2.2.2. | | |
| FLAG FIELD RCH= | 7. | 20. | | 2.2.2.7.6.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 8. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2. | | |
| FLAG FIELD RCH= | 9. | 20. | | 2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 10. | 20. | | 2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 11. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 12. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 13. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 14. | 20. | | 2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 15. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 16. | 20. | | 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2. | | |
| FLAG FIELD RCH= | 17. | 12. | | 2.2.2.2.2.2.2.2.2.2.5. | | |
| ENDATA4 | | | | | | |
| HYDRAULICS RCH= | 1. | 30.0 0.0001828 | .9789 | 14.00000 | 0.01628 | .035 |
| HYDRAULICS RCH= | 2. | 30.0 0.0001895 | .9838 | 13.30000 | 0.01351 | .035 |
| HYDRAULICS RCH= | 3. | 30.0 0.0002137 | .9795 | 12.40000 | 0.01226 | .035 |
| HYDRAULICS RCH= | 4. | 30.0 0.0001425 | .9824 | 16.10000 | 0.01469 | .035 |
| HYDRAULICS RCH= | 5. | 30.0 0.0001057 | .9859 | 21.20000 | 0.008562 | .035 |
| HYDRAULICS RCH= | 6. | 30.0 0.0000928 | .9922 | 21.70000 | 0.004773 | .035 |
| HYDRAULICS RCH= | 7. | 30.0 0.0000860 | .9934 | 21.70000 | 0.003175 | .035 |
| HYDRAULICS RCH= | 8. | 30.0 0.0000795 | .9954 | 21.60000 | 0.002580 | .035 |
| HYDRAULICS RCH= | 9. | 30.0 0.0000849 | .9960 | 21.60000 | 0.001333 | .035 |
| HYDRAULICS RCH= | 10. | 30.0 0.0000918 | .9962 | 21.10000 | 0.002004 | .035 |
| HYDRAULICS RCH= | 11. | 30.0 0.0000987 | .9971 | 20.90000 | 0.001502 | .035 |
| HYDRAULICS RCH= | 12. | 30.0 0.0000812 | .9977 | 26.50000 | 0.001355 | .035 |
| HYDRAULICS RCH= | 13. | 30.0 0.0000700 | .9985 | 32.30000 | 0.000794 | .035 |
| HYDRAULICS RCH= | 14. | 30.0 0.0000678 | .9989 | 29.80000 | 0.000518 | .035 |
| HYDRAULICS RCH= | 15. | 30.0 0.0000670 | .9994 | 27.30000 | 0.000153 | .035 |
| HYDRAULICS RCH= | 16. | 30.0 0.0000675 | .9995 | 24.70000 | 0.000212 | .035 |

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HYDRAULICS RCH= 17.      30.0 0.0000687      .9999 22.50000 0.000055      .035
ENDATA5
REACT COEF RCH= 1. 0.032 0.005 .0000 1. 0.223 0.0000 0.00E-4
REACT COEF RCH= 2. 0.032 0.005 .0000 1. 0.239 0.0000 0.00E-4
REACT COEF RCH= 3. 0.032 0.005 .0000 1. 0.259 0.0000 0.00E-4
REACT COEF RCH= 4. 0.032 0.005 .0000 1. 0.196 0.0000 0.00E-4
REACT COEF RCH= 5. 0.032 0.005 .0000 1. 0.155 0.0000 0.00E-4
REACT COEF RCH= 6. 0.032 0.005 .0000 1. 0.156 0.0000 0.00E-4
REACT COEF RCH= 7. 0.032 0.005 .0111 1. 0.158 0.0000 0.00E-4
REACT COEF RCH= 8. 0.032 0.005 .0111 1. 0.159 0.0000 0.00E-4
REACT COEF RCH= 9. 0.032 0.005 .0111 1. 0.161 0.0000 0.00E-4
REACT COEF RCH= 10. 0.032 0.005 .0111 1. 0.164 0.0000 0.00E-4
REACT COEF RCH= 11. 0.032 0.005 .0111 1. 0.166 0.0000 0.00E-4
REACT COEF RCH= 12. 0.032 0.005 .0111 1. 0.131 0.0000 0.00E-4
REACT COEF RCH= 13. 0.032 0.005 .0111 1. 0.108 0.0000 0.00E-4
REACT COEF RCH= 14. 0.032 0.005 .0111 1. 0.117 0.0000 0.00E-4
REACT COEF RCH= 15. 0.032 0.005 .0111 1. 0.128 0.0000 0.00E-4
REACT COEF RCH= 16. 0.032 0.005 .0111 1. 0.142 0.0000 0.00E-4
REACT COEF RCH= 17. 0.032 0.005 .0111 1. 0.156 0.0000 0.00E-4
ENDATA6
N AND P COEF RCH= 1. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 2. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 3. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 4. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 5. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 6. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 7. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 8. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 9. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 10. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 11. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 12. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 13. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 14. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 15. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 16. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
N AND P COEF RCH= 17. 0.013 0.002 0.200 0.00 0.25 .01 0.002 0.00
ENDATA6A
ALG/OTHER COEF RCH= 1. 50.0 0.05 0.72 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 2. 50.0 0.05 0.72 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 3. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 4. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 5. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 6. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 7. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 8. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 9. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 10. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 11. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 12. 50.0 0.05 0.90 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 13. 50.0 0.05 0.82 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 14. 50.0 0.05 0.82 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 15. 50.0 0.05 0.82 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 16. 50.0 0.05 0.72 0.0 0.0 0.0 0.0
ALG/OTHER COEF RCH= 17. 50.0 0.05 0.72 0.0 0.0 0.0 0.0
ENDATA6B
INITIAL COND-1 RCH= 1. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 2. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0

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INITIAL COND-1 RCH= 3. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 4. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 5. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 6. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 7. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 8. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 9. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 10. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 11. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 12. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 13. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 14. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 15. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 16. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
INITIAL COND-1 RCH= 17. 66.6 5.00 5.00 0.00 0.0 0.0 0.0 0.0 0.0
ENDATA7
INITIAL COND-2 RCH= 1. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 2. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 3. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 4. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 5. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 6. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 7. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 8. 10.0 0.550 0.03 0.02 0.20 0.060 0.02
INITIAL COND-2 RCH= 9. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 10. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 11. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 12. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 13. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 14. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 15. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 16. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
INITIAL COND-2 RCH= 17. 10.0 0.550 0.03 0.02 0.30 0.060 0.03
ENDATA7A
INCR INFLOW-1 RCH= 1. 3.0 66.6 5.00 00.0 0.0 0.0 .000 0.00 0.08
INCR INFLOW-1 RCH= 2. 3.0 66.6 5.00 00.0 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 3. 3.0 66.6 5.00 370.4 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 4. 3.0 66.6 5.00 740.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 5. 3.0 66.6 5.00 833.3 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 6. 3.0 66.6 5.00 740.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 7. 3.0 66.6 5.00 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 8. 3.0 66.6 5.00 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 9. 3.0 66.6 5.00 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 10. 3.0 66.6 5.00 555.6 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 11. 3.0 66.6 5.00 468.5 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 12. 3.0 66.6 5.00 468.5 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 13. 3.0 66.6 5.00 451.5 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 14. 3.0 66.6 5.00 408.9 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 15. 3.0 66.6 5.00 366.3 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 16. 3.0 66.6 5.00 323.7 0.0 0.0 .000 0.00 0.0
INCR INFLOW-1 RCH= 17. 3.0 66.6 5.00 281.1 0.0 0.0 .000 0.00 0.0
ENDATA8
INCR INFLOW-2 RCH= 1. 0.0 0.00 0.00 0.00 0.00 0.74 0.00
INCR INFLOW-2 RCH= 2. 0.0 0.00 0.00 0.00 0.00 12.96 0.00
INCR INFLOW-2 RCH= 3. 0.0 0.00 0.00 0.00 0.00 25.93 0.00
INCR INFLOW-2 RCH= 4. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 5. 0.0 0.00 0.00 0.00 0.00 0.00 0.00
INCR INFLOW-2 RCH= 6. 0.0 22.20 0.00 0.00 0.00 0.00 0.00

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INCR INFLOW-2 RCH= 7. 0.0 22.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 8. 0.0 22.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 9. 0.0 22.20 0.00 0.00 0.00 0.00 3.70 0.00
 INCR INFLOW-2 RCH= 10. 0.0 22.20 0.00 0.00 0.00 0.00 5.56 0.00
 INCR INFLOW-2 RCH= 11. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 12. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 13. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 14. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 15. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 16. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
 INCR INFLOW-2 RCH= 17. 0.0 10.20 0.00 0.00 0.00 0.00 0.00 0.00
ENDATA8A
ENDATA9
 HEADWTR-1 HDW= 1.0 REACH 1 1231. 65.5 7.50 5.60 0.00 0.0 0.0
ENDATA10
 HEADWTR-2 HDW= 1.0 0.0 0.0 13.8 0.72 0.03 0.02 0.17 0.04 0.02
ENDATA10A
 POINTLD-1 PTL= 1BARTHOLOMEW 0 69.00 60.3 7.90 8.1 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 2OUCH POW IN 0 -10.62 74.1 0.00 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 3OUCH POW OUT 0 2.40 99.0 6.00 5.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 4ENT STER IN 0 -307.54 74.1 0.00 0.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 5ENT STER OUT 0 307.54 112.0 7.70 5.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 6STERLINGTON 0 0.29 86.0 2.00 69.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 7KOCHEOOL 0 4.82 86.0 2.00 10.7 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 8ANGUS 002 0 1.45 86.0 2.00 106.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 9B DE L'OUTRE 0 13.10 62.8 7.70 5.6 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 10B D'ARBONNE 0 0.00 65.8 7.50 5.6 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 11CHAUVIN B 0 2.40 60.3 7.90 23.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 12ENT MON IN 0 -224.30 75.1 0.00 0.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 13ENT MON OUT 0 224.30 106.0 6.75 7.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 14JUDY SLOUGH 0 23.29 59.9 2.00 86.4 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 15MONROE POTW 0 23.21 86.0 2.00 23.0 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 16CHENERE CR 0 0.50 59.9 8.00 12.1 0.0 0.0 0.0 0.0 0.0
 POINTLD-1 PTL= 17CYPRESS CR 0 0.00 86.0 0.00 0.0 0.0 0.0 0.0 0.0 0.0
ENDATA11
 POINTLD-2 PTL= 1 0.0 0.0 17.4 0.70 0.02 0.02 0.22 0.21 0.03
 POINTLD-2 PTL= 2 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 3 0.0 0.0 0.0 0.70 0.03 0.02 0.16 0.08 0.02
 POINTLD-2 PTL= 4 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 5 0.0 0.0 0.0 0.70 0.03 0.02 0.20 0.10 0.02
 POINTLD-2 PTL= 6 0.0 0.0 100.0 10.00 5.00 0.00 0.70 2.50 1.00
 POINTLD-2 PTL= 7 0.0 0.0 0.0 0.76 16.50 0.00 0.58 0.24 0.15
 POINTLD-2 PTL= 8 0.0 0.0 0.0 8.32 0.31 0.00 34.33 0.33 0.01
 POINTLD-2 PTL= 9 0.0 0.0 13.3 0.81 0.02 0.02 0.08 0.08 0.01
 POINTLD-2 PTL= 10 0.0 0.0 13.3 0.71 0.02 0.02 0.07 0.06 0.01
 POINTLD-2 PTL= 11 0.0 0.0 29.3 1.88 1.24 0.02 0.22 0.41 0.63
 POINTLD-2 PTL= 12 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 POINTLD-2 PTL= 13 0.0 0.0 0.0 0.67 0.04 0.04 0.30 0.15 0.03
 POINTLD-2 PTL= 14 0.0 0.0 12.2 2.98 1.50 0.00 0.12 0.69 0.70
 POINTLD-2 PTL= 15 0.0 0.0 0.0 0.67 1.33 0.00 6.36 0.95 0.29
 POINTLD-2 PTL= 16 0.0 0.0 13.3 0.81 0.02 0.00 0.03 0.06 0.01
 POINTLD-2 PTL= 17 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
 LOCAL CLIMATOLOGY 0 0 0.20 55.70 51.70 30.00 8.71
 BEGIN RCH 1

Subsegment 080101

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Revised: